

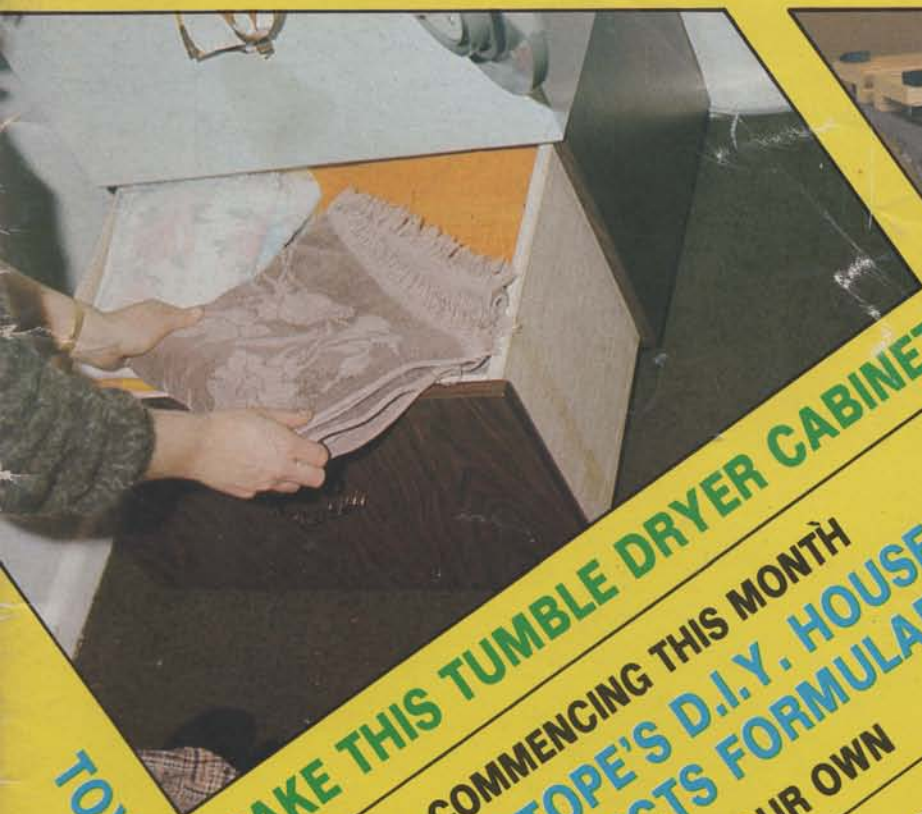
DO-IT-YOURSELF

AUSTRALIA



VOLUME 1 No 4

75 CENTS*



MAKE THIS TUMBLE DRYER CABINET

COMMENCING THIS MONTH

**UNCLE ISOPE'S D.I.Y. HOUSEHOLD
PRODUCTS FORMULAE**

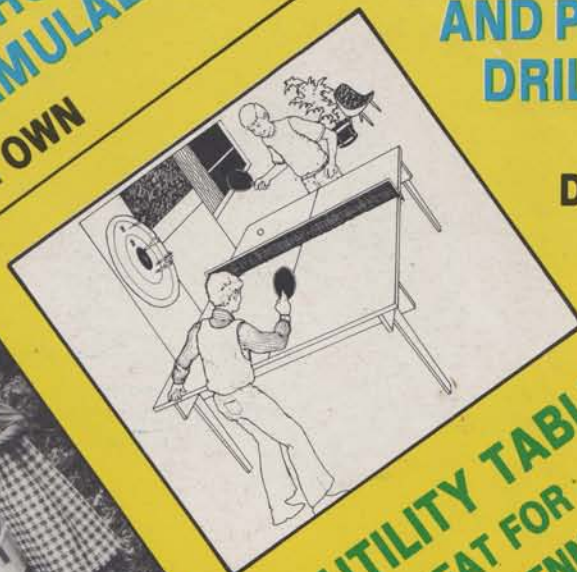
MAKE YOUR OWN

**TOY STORAGE
BLOCKS
ARE SIMPLE
TO MAKE**



**WIN A BLACK
AND DECKER
WORKMATE
AND POWER
DRILL**

**DETAILS
INSIDE**



**A UTILITY TABLE
GREAT FOR
TABLE TENNIS**



**HOSTESS CART
TO MAKE**



**4th BIG
ISSUE**

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the first

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self-adhesive, do-it-yourself, vinyl asbestos tile.



*This covers
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size kitchen
of 8 square
yards.

There's never been anything like it. A large 30½ cm (12") square vinyl asbestos tile — extra thick and extra tough for long, hard wear.

No wax 'Sunbeam' tiles have the exclusive Amticon® finish which means they stay glossy — without waxing.

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Every 'Sunbeam' tile has a self-adhesive back protected by a peel-off covering. No glues, no mess.

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'Sunbeam' tiles — fashion styled in America — will give you a luxury kitchen floor for around \$75*

Easy to buy. Ask one of the following 'Sunbeam' retailers to show you the range of 8 designs and colours. Take your floor measurements and ask for a quote. The rest is easy.

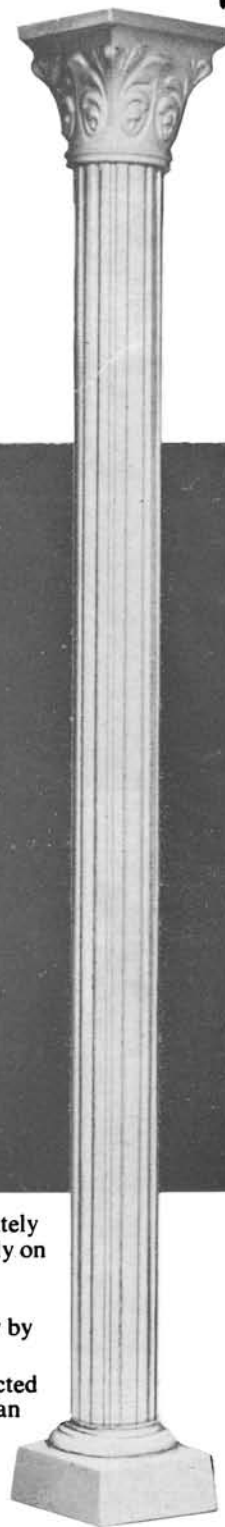
**Available from all leading do-it-yourself retailers
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AMTICO®**

■ CLARK RUBBER STORES
■ GRACE BROS. STORES ■ MYER STORES

Balatum (Aust.) Pty. Ltd., Sinclair Road, Dandenong, Victoria.

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- 4 The Syzygy aluminium column is light – a 10' (3.04m) length weighs approximately 22lbs (9.9kg) and can be carried easily on a car roof rack.
- 5 The Syzygy capital and base can be attached to the column easily, simply by screws supplied with column.
- 6 The Syzygy column can be easily erected in minutes by the home handyman – an optional fixing kit is available.

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AUSTRALIANA

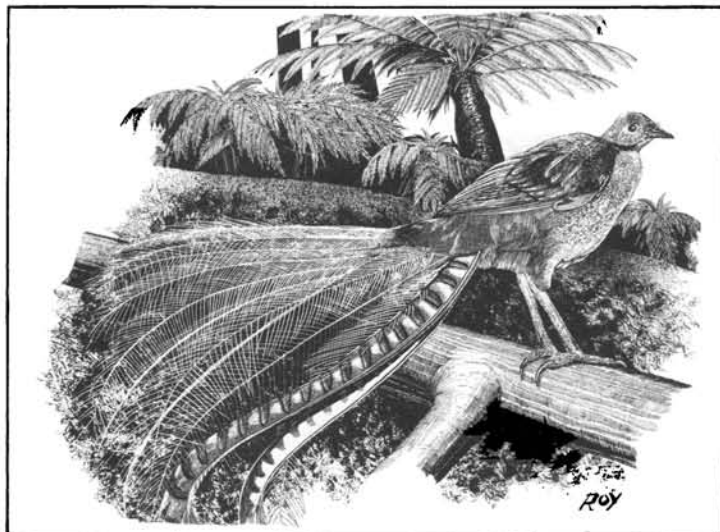
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Do-It-Yourselfer presents this classic collection of Australian animal and bird prints . . . at the economical price of **\$2.95 each**, or a choice of **3 for \$6.95**, or the complete set of **7 prints for only \$13.95**. (plus packing and postage charge of 95 cents for one up to 7 prints).

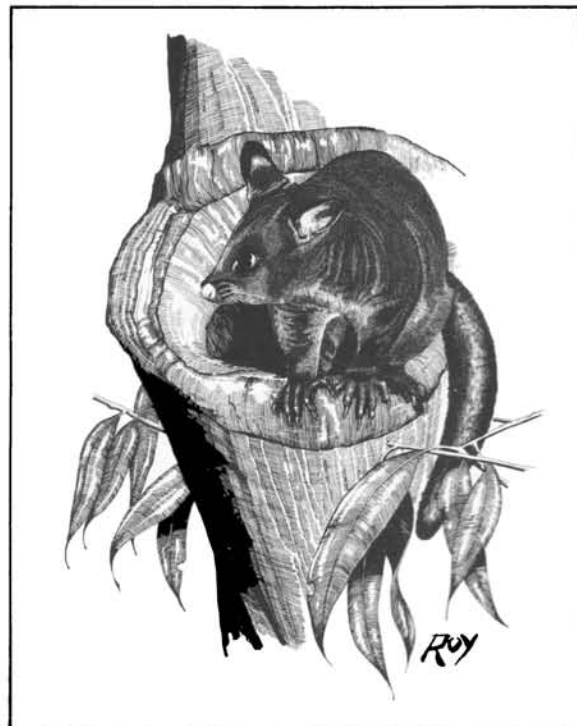


Prints are 18" x 23" (45.7 cm x 58.4 cm) black & white reproductions from scraper board originals

**D-I-Y
SPECIAL OFFER**



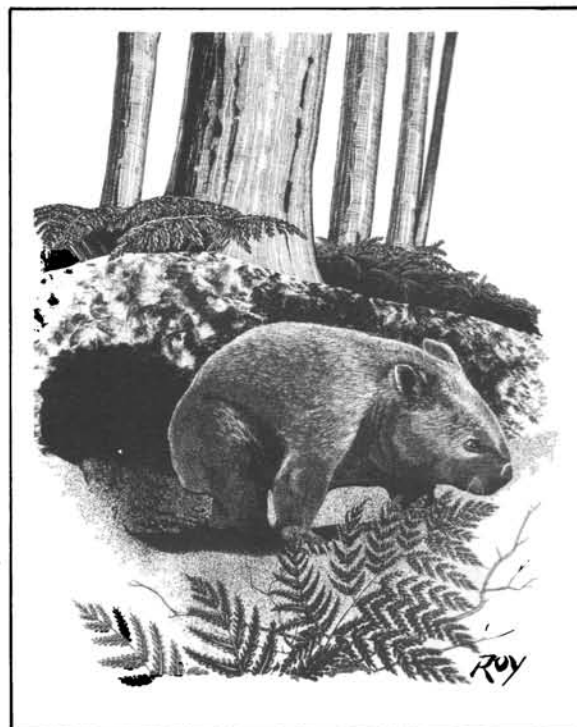
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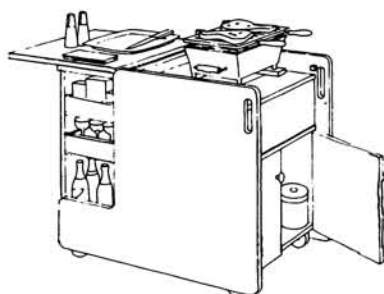
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Port Melbourne, Victoria, 3207

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Including packing and posting charge of 95c. My total remittance of
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Address:
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TICK PRINT No.	1	2	3	4	5	6	7

1. LYREBIRD 2. POSSUM 3. WALLABY 4. WOMBAT
5. PLATYPUS 6. ECHIDNA 7. PENGUINS



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Guttering

This short article will tell you about some recent developments in guttering for your house.

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Uncle Isotope's Formulae

Many household products you use daily are made from commonly available ingredients. For instance, Cologne is made partly from vodka. Other recipes are given.

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Bricktiles

It's hard to tell them from the real thing. They are reasonably easy to lay and this article gives an example of what a room can look like when decorated with bricktiles.



20

Toy Storage Blocks

Here's a project that is a useful one and easy to build. Very few tools are needed.

22

Win a Workmate

A great competition for a great prize. Why not try your luck at listing in order of importance the features of the Black and Decker Workmate.



26

Joe Shaw — Handyman

Joe Shaw is back with more words of wisdom for do-it-yourselfers. This month he talks about wood repairing.

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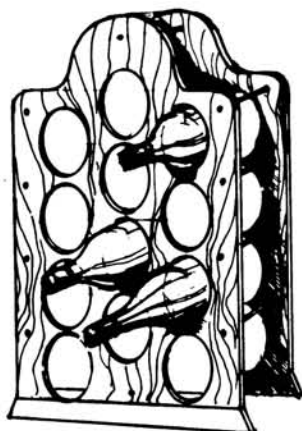
Using a Hand Router

A hand router is an important tool in the workshop. It can be used for routing, shaping, joint cutting, power planing and other machine tool operations.

39

Cobblestones

A short article on Monier's new authentic look of hand finished bluestone pitchers. Tumbling has produced the correct hewn look with random uneven edges.



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Godman in the Garden

This month, Charles Godman discusses some gardening jobs for August and garden planning.

42

Build a Utility Table

A utility table is handy for table tennis indoors, children's parties, a meeting table, you name it. This one knocks down quickly for easy storage.

45

A Tumble Dryer Cabinet

Every tumble dryer should have its own cabinet to stand on. It is convenient for storing items of clothing prior to or after drying whichever you prefer.

48

More Inside Information on Your Car

This series has proved to be very popular. So we are once again taking you into the mystery world of the proverbial family car, so that it no longer is a mystery to you.

52

How to Lay Concrete, Part 2

If you think last month's article on laying concrete was a good one, wait till you see this one. But do yourself a favour, save time and money by ordering a truckload of concrete rather than mixing it yourself.

55

The Good Oil on Car Oil Changing

If you've never had a good reason to change your car oil yourself, then we're about to give you one or two.

56

Make a Wine Bottle Rack

Popular Maurice Southcombe has prepared yet another easy to build project. This month he shows you how to make a wine bottle rack.

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DO-IT-YOURSELF^{ER}

AUSTRALIA

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* Recommended and maximum price only:

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If you manufacture or sell a product aimed at the massive do-it-yourself market, then you are holding the key to this market penetration right in your hand.

Circulation figures, advertising rates and any other information you require on Do It Yourself Australia is available from J. Hindmarsh in Sydney on 241 2471 or ring Melbourne 64 2880, 64 2902 or write Pioneer Publications Pty. Ltd., P.O. Box 201, Port Melbourne, Vic. 3207.

Raymond Security Services

DON'T BE ONE OF "THE CROWD"



"The Crowd" you don't want to belong to is the 65,000* Australians whose homes will be broken into this year.

The do-it-yourselfer can now take positive and inexpensive steps to avoid being one of "The Crowd" by installing a Home Guard Alarm System. It would be hard to find a burglar who would risk being caught with the valuables from your home when your alarm system was attracting the neighbours attention, so before a burglar finds your home start taking these steps.

Step 1.

Phone, call or write for the free booklet "Planning a Security System for your Home".

Step 2.

This booklet shows you how simple it is to plan and install an alarm system using door and window contacts or pressure mats under the carpets.

Step 3.

Invest a spare weekend or two with your screwdriver and pliers and around \$100 for components for your alarm system.

Step 4.

Sit back and relax with the knowledge that your home is no longer an attractive prospect for the burglar.

* Figure estimated on latest police figures available.

**Raymond Security
Services**



Peppercorn House
37 Leveson Street,
North Melbourne, 3051
Phone: 329-0255

Please send me the booklet "Planning A Security System For Your Home"

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(BLOCK LETTERS PLEASE)

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(near Galaxy Cinema)

Telephone: 383-1339

D.I.Y OPEN LETTER

If you're in the market for an aluminium glasshouse to grow your year-round garden in, then I strongly suggest you take a look (and a second one) at the Eden range of glasshouses.

The Eden is imported from New Zealand and available in Australia right now. It is strictly a do it yourself affair with specially designed aluminium bolts to make setting up or dismantling simple. If you move house you can take your Eden with you.

Assembly is simple without specialist know-how or special tools, and precision made sections, give the maximum light and the Eden is glazed right to the ground so you can make use of every inch of light, space and heat.

You get sliding doors, and the facilities for fitting all kinds of accessories — even shelves. Extensions are simple, and condensation channels make sure no harmful drips plunge on to your most delicate plants.

If you want to get some more details, I suggest you contact Bob Smith at Eden Aluminium Glasshouses, 344 St. Kilda Road, St. Kilda, Victoria, 3182. Telephone 94 0478.

Thinking of doing some welding? Then I suggest that you get to know a company like Commonwealth Industrial Gases Limited. They are very attuned to the do it yourself game and have numerous products and pieces of information to help beginners in welding.

Take, for instance, their Transarc Easywelder. This is a complete arc-welding package for the do it yourselfer. You get the arc-welder, wheeling kit, leads, helmet, gloves, the Easyweld Handbook, and a selection of electrodes.

The Easywelder has a wide current range simple push-pull current control, easy-to-read indicator and rigid and solid construction. For details contact the C.I.G. sales department at 46 Kippax Street, Surry Hills, N.S.W., 2010.

Ever wondered how you're going to fix that gate catch to a brick pillar or anything for that matter to masonry.

If you have not heard about the Ramset Dynabolt then it's up to me to tell you.

Simply, all you do is drill a hole using a masonry drill in the brickwork (not the mortar), insert a Dynabolt and tighten it. These bolts expand inside the hole and have super holding power for anchoring things like gate catches and hinges. The selection of the proper length Dynabolt depends upon the thickness of the material to be fastened and the minimum depth of anchor required in concrete for maximum holding power. Ramset have published a catalogue of their products and their address is Maroondah Highway, Croydon North, Victoria, 3136.

If your guttering is rusted or holed, Selleys Panel Fix — a two-part epoxy stop putty which adhered strongly to all metals as well as to wood, glass, fibreglass, ceramics and concrete will fix it.

First clean the rusted surface back to bare metal. If the hole is large, it is a good idea to use a piece of flywire gauze as a reinforcing mesh, impregnating the gauze with Panel Fix. Apply Panel Fix with a knife or spatula over the hole.



Product Marketplace



Now you can grow your own salad in a jar — very quickly. Well known English seedmen Thompson and Morgan have released through their agents in Australia stocks of salad alfalfa seeds.

The salad alfalfa is germinated in a glass jar (we used a tall Fowlers jar), and it matures in about 72 hours flat, increasing its weight by 10 to 15 times.

Salad alfalfa is claimed to be highly nutritious and contains 40 per cent protein and various vitamins.

To start the ball rolling (or salad growing), place three or four teaspoons of seed in the jar and cover with a piece of nylon stocking. Pour slightly warm water into the jar through the stocking and shake the jar to clean the seeds. Pour the water off and repeat three times.

Then fill the jar with water twice a day, and each time drain off the water.

Lay the jar on its side and position in a lighted warm spot. Watch the action then eat.



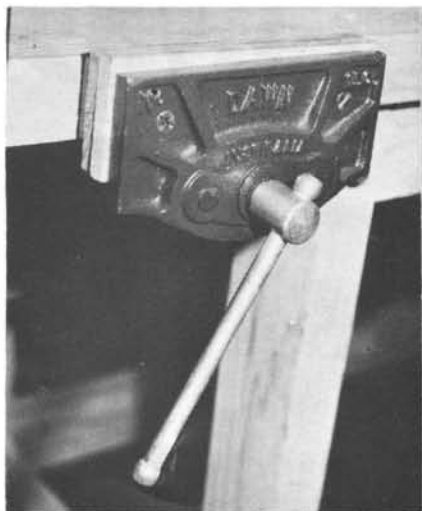
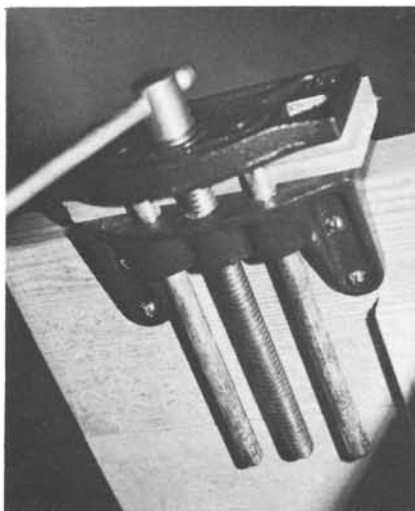
At last the waxless floor is here without sacrifice of a glossy surface.

The Amtico company has made a breakthrough in do-it-yourself floor tile with a no-way Duravynil tile that is extra thick and tough as well as being self-adhering and easy to install.

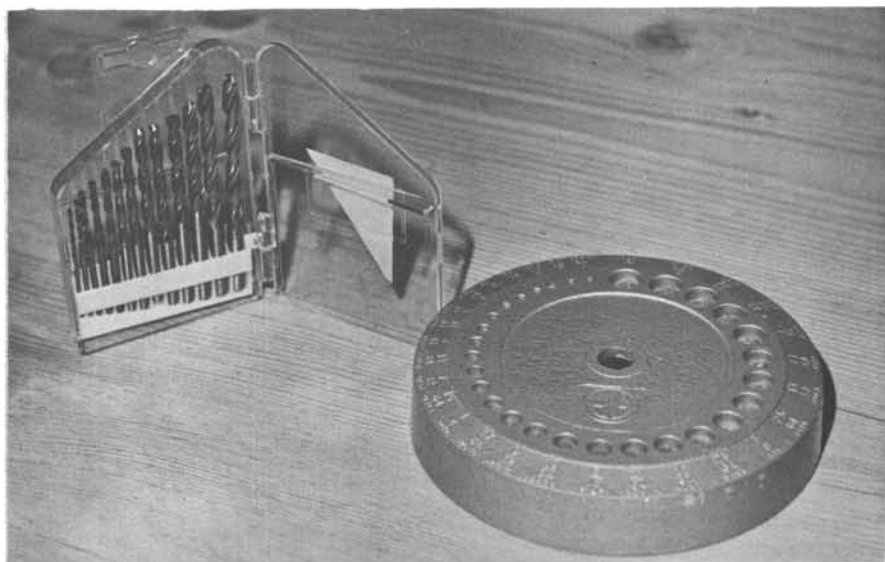
The Amtico range of tiles is called "Sunbeam" and many beautiful colours and patterns constitute the range.

Take the Yardley Brick in either Red or White. This design has all the rugged realism of rugged brick so sought after in antique bricks. Framed in roughened grout, Yardley Brick is the right decorating answer for almost any decor.

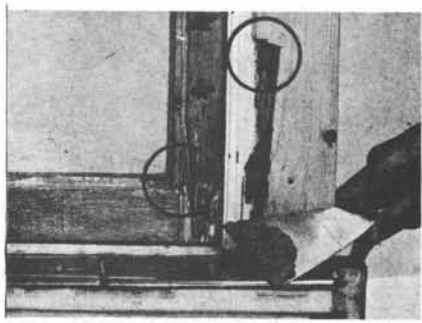
We recommend that you watch out for and ask for the Amtico "Sunbeam" range of fashionable flooring.



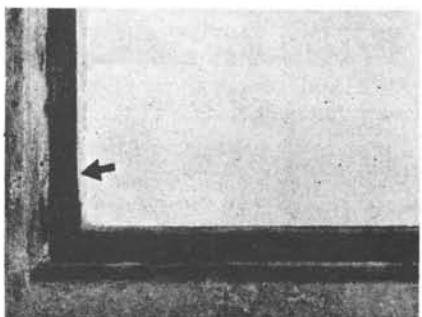
The Dawn handyman woodworker's vise is around \$17 well spent. The model we bought is the Dawn model 150 that comes complete with mounting screws and wood face pieces (to protect your work from bruising). The vise fits to almost any work bench and is of rugged construction that should give years of trouble free service in the do it yourself workshop. The photographs show how the vise is mounted on a work bench. Available from McEwans.



Available from most hardware stores are drill sets and stands like the ones pictured. We recommend you purchase a good quality set of drills (and remember that you get exactly what you pay for in drills), and a drill stand to hold them. The stand holds 29 twist drills ranging in size from 1/16th to 1/2 an inch, and the set of drills comprises 13 chrome-vanadium-steel straight shank twist drills ranging in size from 1/16th to 1/4 of an inch.



We suggest you take a look at Porion, a universal repair mortar and filler based on a synthetic resin that comes ready for use with no mixing but has an unlimited storage life. It may be thinned down with water and it strongly adheres to wood, stone, concrete, cellular concrete, hard enamel, granite, marble, asbestos-cement and many other substances.



The photographs show Porion in action. It can be obtained from most hardware stores.

GUTTERING

the easy way...



When the home handyman is looking to replace rusty gutters and downpipes around his home he should select the guttering materials with the best features.

Such as ease of installation, and low maintenance benefits closely followed by a competitive price with other similar products.

An updated aluminium gutter and downpipe system distributed by Comalco fits the bill admirably.

Although the gutter profile remains unchanged, Comalco has improved the assembly procedure by providing pre-made gutter angles. These join quite simply to the aluminium gutter lengths hence eliminating the time-consuming procedure of making mitre joints at the end of long lengths of gutter.

The first step is to remove old gutter brackets and any nails in the fascia. Then paint any unpainted portion of the fascia.

Next position gutter brackets so that the gutter falls towards the nearest drain outlet. The gutter at the highest point (i.e. the mid-point between outlets) is set level with the top of the fascia with a fall of about 2mm per metre to each drain outlet.

Fix the gutter brackets at about 900mm centres. Where Comalco pre-made gutter angles are used, position brackets at 300mm from fascia corner to hide gutter joint. A bracket should also be fixed near any expansion joint. Use aluminium clouts or, in hardwood, galvanised steel clouts. Fix the brackets at the correct level at the high and low points of each run and string a line between to obtain levels for intermediate brackets.

Cut gutter to length and fit outlet drops, stop ends and gutter angles to the gutter before installing. On-site joints are best made at a point in the gutter between corners and adjacent to a bracket. Apply sealant and use four rivets per joint.

Expansion joints in a straight run of more than 12 metres a slip joint should be incorporated in the gutter to minimise distortion due to expansion and contraction. A stop end is fitted and sealed about 50mm from each gutter end.

Cut cover plate from a scrap piece of gutter and rivet to one stop end so that it covers the joint and sheds water into the gutter on each side.

Lap gutter ends 25mm, with the front edge bead interlocking. A gutter

bracket should be positioned near the joint to support the outer section of gutter.

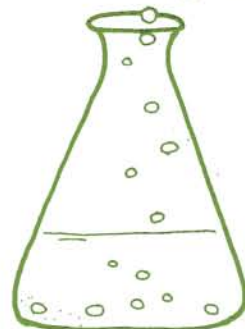
Apply sealant around gutter before fitting and riveting stop end in position.

The combination of the adhesive compound sealant and riveted on screw fixed joints gives a positive and waterproof seal which will not deteriorate over years of normal service life. Fixing time can be cut as there is no messing around with heat sources and solders.

Die-cast aluminium pipe bends and elbows are also included in the system. These slot into downpipe sections thereby completely eliminating mechanical fixing. Handyman and tradesmen can still cut downpipes to make conventional joints. For these instances Comalco provides a cardboard template for preparing the bend angle for the particular downpipe location.

A display of guttering can be seen and information obtained from the Building Development Display Centre, 332 Albert Street, East Melbourne. The Centre is open seven days a week Monday to Friday 9am to 5pm, Saturday 9am to 12 noon and Sunday 2pm to 5pm.

uncle isotope's d.i.y household products formulae



WINDOW SPRAY CLEANER:

If you've ever wondered what's in some of those fancy expensive bottles or cans of window spray you buy, wonder no more. You'll be surprised at the least, and maybe downright mad at what you've been paying for. Here's a way to make your own at a fraction of the shop bought price.

You'll need some ethylene glycol (this is permanent anti freeze that you get at your service station and use in your radiator, and can be bought in small cans), and some plain tap water. Measure out 3 cups of water and stir in 2 tablespoons of ethylene glycol. Transfer to a plastic spray bottle, spray glass, and wipe off with a lint free cloth.

FIREPLACE STARTER:

If you have forgotten your boy scout techniques, here is a way to get the logs burning in the fireplace without messing around with papers, and kindling. Simply mix 5 pounds of sawdust with 1 quart of oil from your car if you change it yourself. Allow one hour for complete absorption, and store it in an airtight container.

Sprinkle this mixture around some small logs or split pieces of large ones and light. (Caution: The mixture of sawdust and oil is flammable.)

AN INGENIOUS RAT POISON:

If you want to reduce the rat population without endangering the dogs, cats and small children in the area, you might see how this works. Rats are omnivorous, and will eat almost anything, while this usually does not appeal to dogs or cats.

Make a mixture of cement and flour, in roughly equal amounts. Set a pan of this dry powder out next to a pan of water. For a hungry rat the results could be astonishing.

SOFTENING AN OLD PAINT BRUSH:

Here is a rather simple and old fashioned method of reviving a stiff old paint brush. Put the brush in enough boiling vinegar to just cover the bristles and simmer for a few minutes. Wash it out in warm water and soap and then dry.

PAINT SPOT REMOVER:

If there are a few spots that you miss until the whole job is over and they have dried too hard to simply wipe up, mix a small amount of equal parts of turpentine and household ammonia, dip one end of a rag in and this will generally remove the stubborn ones. (Note: Turpentine is flammable and toxic. Avoid vapors of household ammonia.)

JAR AND BOTTLE SEALER:

For home bottling, in fact for any kind of bottling, it is important to have an airtight seal so that airborne bacteria cannot get into the jars and eat whatever you have put in them, thus spoiling it before you can eat it. An easy way to effect an airtight seal is to heat 1 cup of water and 1 teaspoon of gelatin in a metal container standing in a saucepan of water until the gelatin is dissolved, and then add 3 tablespoons glycerin, and paint this on the inside of jar or bottle caps with a brush before putting them on.

uncle isotope's d.i.y household products formulae



MOISTURE PROTECTION:

Equipment of all kinds especially tape recorders etc., from overseas often come packaged with a small bag of silica gel. This substance absorbs moisture, protecting against rust and mildew, and is best used in a fairly well enclosed space such as a box with a lid or a drawer. You can make up your own by simply putting some silica gel crystals in small cheesecloth bags. Activate the crystals by heating in an oven for four or five hours at 400 degrees F. After about a month depending on the humidity, they will have absorbed their limit and should be reactivated by heating again in the oven. They can be used over and over in this way indefinitely.

GOLF BALL CLEANER:

Here is a simple and easy method for cleaning old golf balls. Soak them overnight in a solution of 1 cup water and $\frac{1}{4}$ cup household ammonia. Rinse them off with clear water. Now you will be able to see them way off, two hundred yards or so down the fairway.

COLOGNE:

This is a pleasant, all purpose cologne that you can make as given, or alter the proportions to suit your taste. Into one cup ethyl alcohol (vodka) mix with constant stirring 40 drops orange flower oil, 17 drops lemon oil, 7 drops bergamot oil, and 7 drops rosemary oil.

SAVING SOAP:

If you take a good look at the end of the soap bar that you're about to

throw away because it has become too small to do any good, you will see that it is a not insignificant fraction of the original bar; for most people it is about one fifth. Which means that if you save it, for every five bars you use you will have a free one. So toss those soap remnants in a box or large jar instead of the wastebasket, and when you have collected enough, cut them up into slivers, put them in a pan with not quite enough water cover, and boil gently, uncovered until the whole is reduced by approximately the amount of water you added. Then pour into moulds, either cardboard boxes or plastic soap dishes, which can be reused, and allow to cool overnight. Remove from the moulds and allow to air dry for at least two weeks. The longer they dry out, the harder they become and the longer they will last.

GREASE SPOT REMOVER:

Fullers earth is a very fine powder which is very absorptive. To remove grease spots, sprinkle a small amount of Fullers earth on the spot, brush it well in all directions, and remove it with a damp cloth.

SILVER POLISH:

Here's an old method of cleaning stained silver. Place it in a pan and cover with sour milk. Let it stand overnight, and rinse off in cold water. This may sound old fashioned and strange, but it does work quite well.

DRAIN CLEANER:

Mix together 1 cup baking soda, 1 cup salt, and $\frac{1}{4}$ cup cream of tartar. Once a week or so put $\frac{1}{4}$ cup down the drain followed by a cup of boiling water, and flush with cold water. This will keep the drains free and prevent odors.

LEATHER PRESERVATIVE:

Mix equal parts of neat's foot oil and castor oil. For better penetration of the leather, this should be warmed before you rub it on with the cloth.

This is a good occasional treatment, every six months or so, for all leather articles such as shoes, belts clothing and furniture, except those made of suede.

ANT EXTERMINATOR:

This works on ants rather like the cockroach powder does on the roaches. To $\frac{1}{2}$ cup molasses, add $\frac{1}{4}$ cup sugar and $\frac{1}{4}$ cup dry yeast, stirring into a paste. Coat pieces of cardboard with this, and place them in the ant runways.

COCKROACH EXTERMINATOR:

Mix 4 tablespoons borax, 2 tablespoons flour, and 1 tablespoon cocoa powder. Put it in bottle caps or other small open containers and place them where the cockroaches will run across the mixture and be surprised at the free lunch, only to find that it gives them fatal indigestion.

REMOVING WATER SPOTS FROM FURNITURE:

Water spots on a finish show as white or light coloured hazy marks, usually rings where a glass has been resting. To remove them, mix 10 drops lemon oil in 2 cups denatured alcohol (any type). Dampen one corner of a soft cloth with this and lightly rub the spots, drying immediately with the dry end of your cloth. (Note: Denatured alcohol is flammable.)

GARDEN INSECTICIDE:

Pyrethrin is made from chrysanthemums, is used in many different insecticides, and is mildly toxic if taken internally. But handled properly it is one of the best and least toxic to animals of all the chemical insecticides used. For a solution that will discourage most garden pests, mix 1 cup pyrethrin in 2 quarts kerosene, and add .2 quarts water and $\frac{1}{4}$ cup liquid soap or dishwashing detergent. The kerosene may damage some delicate plants, so it is a good idea to ask your local nurseryman or test it in a small area if you have any doubts.

SELECTING THE RIGHT GLUE for the right job ...

Part 2

Article	Problem	Product
GLASS HOUSES	Wooden frames	SPECIAL PUTTY
" "	Aluminium frames	ALUMINIUM GLAZE
" "	Steel Frames	STEEL FRAME PUTTY
" "	Sealing glass	RUBBER CALK SEALANT, EZY-CALK
GOLF CLUBS	Woods—chipped	MARINE STOP PUTTY
GUTTERING (ALL TYPES)	Repairing holes and leaky seams	PANEL METAL, RUBBER CALK SEALANT, EZY-CALK, ROOFSEALER, KWIK-GRIP 66, CONTACT ADHESIVE
HARDBOARDS	Bonding to floor (concrete and wood)	WALLBOARD ADHESIVE, WALLBOARD CEMENT
HARDBOARD	Bonding to wall	WALLBOARD CEMENT (Gun Grade), WALLBOARD ADHESIVE, KWIK-GRIP, CONTACT ADHESIVE, PANEL METAL, PLASTIC CONCRETE
HESSIAN HOBBIES	Bonding to ply-hardboard Gluing matches, clothes pegs, paddle pop sticks	AQUADHERE, WOODWORK GLUE, WATERPROOF GLUE, PLASTICS GLUE, INSTANT GRIP, HOUSEHOLD GLUE, HOBBY AND PAPER GLUE, PAPER PASTE
INSECT SCREENING, FIBREGLASS MESH	To fix to wood or metal frames	KWIK-GRIP, CONTACT ADHESIVE
IRON ROOF JOINTS	Lapping	RUBBER CALK SEALANT
KOSI STOVES AND ALL SLOW COMBUSTION STOVES	Joining flues and downpipes. Sealing joints in firebox where direct flame is encountered	HEAT RESISTING PUTTY, FIREPROOF CEMENT
LAMINEX	Bonding to table tops, benches, etc.	KWIK GRIP (No clamping), CONTACT ADHESIVE, 308 GLUE, AQUADHERE (Clamping needed), WOODWORK GLUE
LAPIDARY	Fixing gemstones to findings	ARALDITE, EV9/P65M
LEATHER	Bonding, joining, repairing	KWIK-GRIP, CONTACT ADHESIVE, INSTANT GRIP, HOUSEHOLD GLUE
LEAD	Bonding	ARALDITE, EV9/P65M, KWIK GRIP, CONTACT ADHESIVE
LINO	Bonding foam to back of lino, sticking to floor	KWIK-GRIP, CONTACT ADHESIVE
LINOLEUM	Fixing large areas	BOND FIX
"	Fixing lifting edges	KWIK-GRIP, CONTACT ADHESIVE, INSTANT GRIP, HOUSEHOLD GLUE
LUBRICANT (DRY)	Lubricating	SLIK
LUBRICATING	External locks, hinges, releasing seized nuts and screws	R.P.7, SELCO TROUBLE SHOOTER
MAPS	Protection from water	WATER SHIELD
"	Protection of surface from grease and dirt	LOK-CRETE

Article

Problem

Product

MASONITE	Bonding to studs	PLASTIC CONCRETE, WALLBOARD CEMENT
MASONRY BRICKS	Bonding	PANEL METAL, PLASTIC CONCRETE, CEMENT BLOCK ADHESIVE
" "	Waterproofing	WEATHER GARD (Silicone Water Repellent)
MASONRY BRICKS	Repairing	PLASTIC CONCRETE
" "	Replacing broken sections	SPEED CEMENT, LOK-CRETE
MATS	Repairing, etc.	CARPET GLUE
" "	To make non skid	CARPET GLUE
METALS	Bonding	ARALDITE, EV9/P65M, KWIK-GRIP
" "	Filling and surfacing	CONTACT ADHESIVE
MICA REPLACEMENTS	Doors on Kosi stoves	PANEL METAL, POLY PATCH
MOTORS (BOATS AND CARS)	Water protection (spark plugs, distributors)	FIREPROOF CEMENT
" " " "	Repairing rust holes in body	R.P.7, SELCO TROUBLE SHOOTER
MOULDING AND LUBRICATION	Sticking	POLY-PATCH, POLYESTER RESIN, PANEL METAL, FIBREGLASS KITS
NEOPRENE	Bonding	SILICONE MOULD RELEASE, OVEN COAT
ORNAMENTAL HOBBIES	Bonding shells, tiles stones or pebbles to bottles, lamps bricks or garden pots	KWIK-GRIP, CONTACT ADHESIVE
" "	Filling gaps between above	WATERPROOF GLUE (Clear), PLASTICS GLUE, UNIFIX, BATHROOM AND TILE CEMENT
ORNAMENTS	Repairing	SPAKFILLA mixed with LOK-CRETE and water 50/50, GROUTING CEMENT
OVENS	Cleaning	ARALDITE, EV9/P65M, PLASTIC PORCELAIN, UNIFIX, BATHROOM AND TILE CEMENT
" "	Prevents grease and spatter from sticking	OVEN KLEEN
PAINT	Removing	OVEN COAT
PAINT-BRUSHES	Cleaning	PAINT STRIPPER
PAINTWORK PREPARATION	Cleaning walls prior to painting	PAINT BRUSH KLEEN
PAINTWORK CLEANING	Cleaning painted walls	PAINTERS SOAP
PAPER	Bonding for school, office or photographic use	PAINTERS SOAP
PAPIER-MACHE	For modelling	PAPER PASTE, AQUADHERE, WOODWORK GLUE, PAPER AND HOBBY GLUE, PAPER PASTE
PANELYTE	Bonding	WALLPAPER PASTE
PATIO FURNITURE	Bonding	KWIK-GRIP (No Clamping), CONTACT ADHESIVE, 308 GLUE, AQUADHERE (Clamping needed), WOODWORK GLUE
PERSPEX	Bonding	308 GLUE, RESORCINOL, ARALDITE, EV9/P65M
PETROL TANKS	Repairing and filling holes	WATERPROOF GLUE, PLASTICS GLUE
PHOTOGRAPHIC USE	Bonding	PANEL METAL AND METALLIC CEMENT
PIPES	Repairing water, gas, petrol, down-pipes, holes and leaky seams	PAPER PASTE, PAPER & HOBBY GLUE, AQUADHERE, WOODWORK GLUE
PIPES (EARTHENWARE)	Repairing and jointing	PANEL-METAL, METALLIC CEMENT
PLASTER	Sealing coat	PANEL METAL, PLASTIC CONCRETE
PLASTER BOARD	Bonding flat sheets	LOK-CRETE
" "	General Repairs	WALLBOARD ADHESIVE, WALLBOARD CEMENT (Gun Grade), PLASTIC CONCRETE
PLASTER (WALLS AND CEILINGS)	Patching	POLY PATCH, POLYESTER RESIN, UNIFIX, BATHROOM & TILE CEMENT
		SPAKFILLA, INSTANT SPAKFILLA

Exposed interior brickwork is highly popular at the moment and many new homes are featuring this trend.

It is not impossible but it is highly impractical to construct interior brick walls in existing homes.

The next best thing is a lining called "Gidgee"—a reconstituted Colonial Sandstock Brick-Tile. These have been designed for fixing to almost any standard, smooth wall surface and may be used according to instructions, either indoor or outdoor.

Interior walls of brick, concrete or timber also framed up walls using particle board, fibrous plaster, plaster-board, cement render or plywood are all suitable bases for glueing "Gidgee".

Wall finishes of paint, laminated plastic, render and even glazed tiles may be utilized if already on the wall.

One carton holds a pre-mixed selection, of 45 brick tiles, sufficient to cover 0.93m² (10 square feet), using normal 10 mm 3/8th") wide mortar lines.

Bricks are about 215mm x 80mm (8 1/2" x 3 1/4" x 1/4"). The metric module sizes, include mortar lines, would be 225mm long (1/8th of 1800mm) x 90mm (1/10th of 900mm).

TOOLS REQUIRED

1. Notched plastic handspreader, provided for glueing, or for professionals, a wide spaced tooth trowel may be used.
2. Laminate scratch knife, small file tang, or similar for cutting.
3. Mortar bag for "Old Sydney Mortar" provided.
4. Handsander for corner mitreing.
5. Heater for melding corners — Porta-Gas or electric iron etc.

6. Also for quick easy working an electric radiator, even two, may be placed on their backs, to heat up the bricks on a sheet of metal.

BRICK LAYOUT

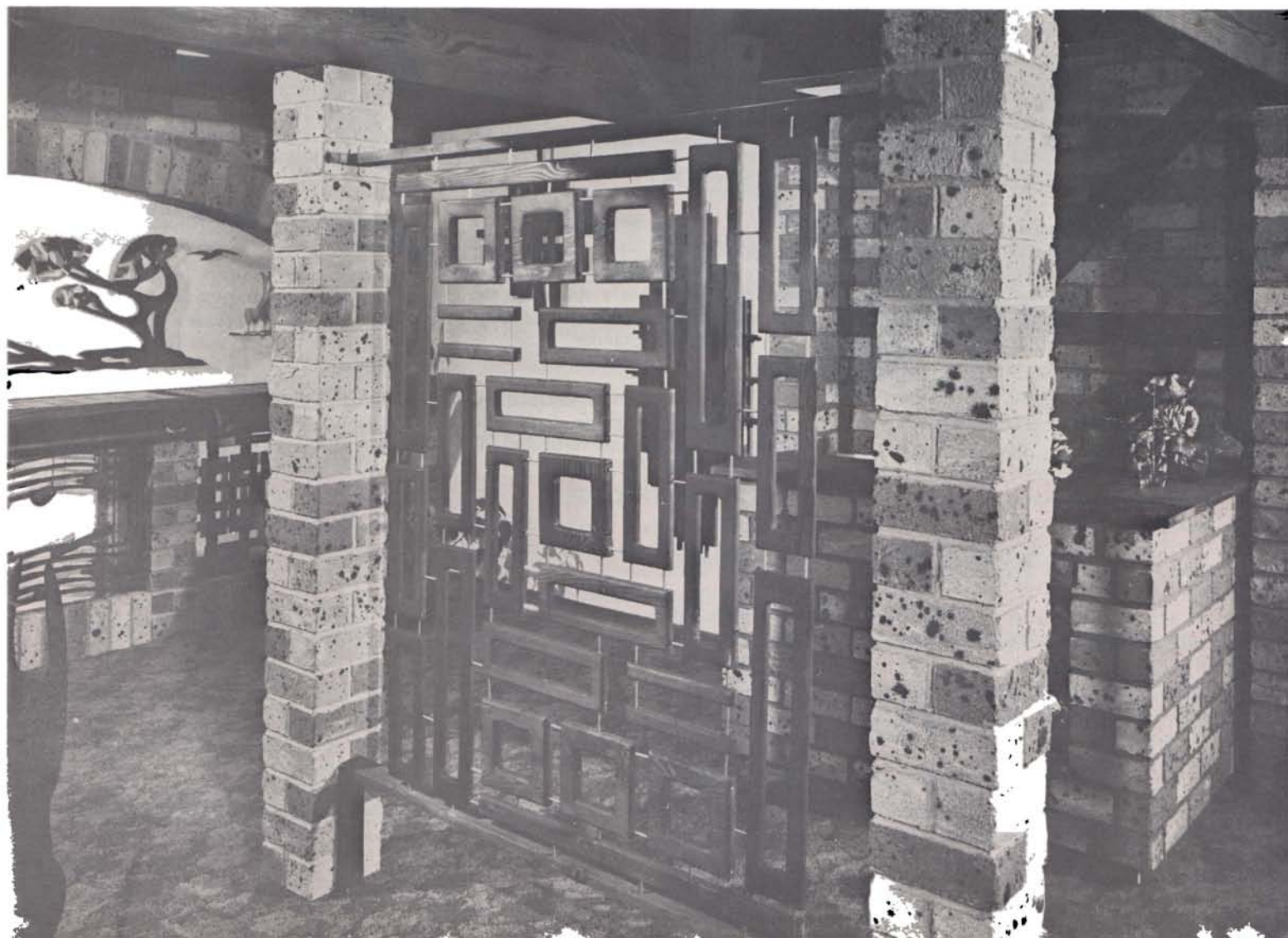
Study standard brickwork, especially old buildings and note how the bricks are laid. This will help realism.

Bricks are normally step bonded. (Stretcher bond.) English, Flemish and Colonial Bonds (variations of headers and stretchers) are also easily obtained with "Gidgee" by trimming. Arch bricks around arches and lintels over doorways and windows can similarly be executed by trimming the "Gidgee" brick-tile to fit.

Where bricks laid horizontally (stretchers) meet the archway, they may be angle cut like normal bricks.

Over a doorway, to fit the number of bricks on edge into the door width,

BEAUTIFUL BRICKTILES



one or two bricks may be trimmed slightly narrower.

DATUM LINE

Not always important but it is suggested you draw the horizontal datum line to begin, with a thick lead pencil, at the springing line of the arch (if any), i.e. where the arch straightens out into the column.

Draw horizontal guide lines above and below the datum line at abt. 184mm widths (7½"). Keep level. If there are no archways, use whatever is considered important as a datum line. This is usually easy. It doesn't matter that a full brick be used or not, where the "Gidgee" runs down to skirting or to the carpet, or onto a wooden floor, or where either the floor or ceiling are sloping, or where there are cornices.

In all these instances, it would appear that the "Gidgee" brick runs behind the covering. This looks real.

Other starting levels for the datum line might therefore include, under a counter or shelf, onto a level concrete floor, or from a level exposed ceiling line.

The last course down onto the floor skirting, may only be a part brick wide. Two options are open. Either cut the brick into the width, or crib space on the mortar lines. However, remember that whatever is done on the first wall face, should normally be carried right around the other wall faces.

Draw vertical guide lines at about 457mm (18") distances from the corner/s or beginning of work.

It is very hard to go wrong . . . especially as Sandstock bricks are normally irregular. Bricks may be trimmed—lengths or width, square or angled as desired.

HANDLING OF THE BRICKS

Do not try to handle bricks in temperatures 15°C (60°F). Leave them in sun or warm up room with radiator.

To speed work in awkward places, such as under archways, brick-tiles may be heated on a metal plate over a radiator or even in a low lit oven with the door held open.

Keep the colours separate up to the time of application, so that a selection may be made if required. Do not stack brick-tiles back-to-back as they may stick.

On opening a carton, if the brick-tiles seem to be stuck, simply take a bundle of them, hold them firmly



and bump them on the long side—and they will part. Or use a 76mm (3") wide scraper.

Broken tiles may be cut for closers, angles etc., but may also be heat melded together again using a portagase flame.

TO CUT

Score the brick—with laminate knife, file etc.—hold a rule onto the brick whilst you lever down and snap. Clean off with handsander.

GLUE

See "Gidgee" adhesive instructions. Draw horizontal guide lines abt. 184mm (7½") apart, and vertical guide line abt. 457mm (18") apart.

PLACING BRICK-TILES

Commencing from the mitred corner bricks, press the selected bricks firmly into place, the top of the brick on the horizontal guide line. Work horizontally along the top course. Space the bricks so that any two full bricks and their mortar lines cover about 457mm (18") wide.

Half, third or two third part bricks may be used to fit bricks evenly into the required wall width. They are usually called 'closers'.

Lay the first course along one wall face commencing from top or ceiling,

then miss the second course and lay the third course. Repeat and then fill in the in-between courses by eye.

Watch that the perps, or vertical mortar lines, are staggered from the row above and below and are roughly in line with the alternate rows. 'Closers' can be run in the same line in alternate rows up the wall, or they can be run diagonally in a pattern across the wall—like normal old style brickwork—whichever takes the fancy.

Use bricks trimmed to the required size for around doorways, windows, shelves, and along floor skirtings.

Mortar may be applied say 24-48 hours after glueing—usually after corner melding, if any. (This requires adhesive to be set.)

MELDING CORNERS

After the glue sets in a few hours, the external corners can be melded. This is carried out by the application of heat and drawing the then softened brick-tile over into or melding into the opposing brick.

Heat may be applied by a Portagase, a household iron, or with special heating tool. The melding may be completed by rubbing around the now dough like consistency brick-tile into irregular colonial sandstock forms, using the handsander. Alternatively, simply use any handy tool to distort and meld the corner, to simulate rough colonial brickwork.

MORTAR

See "Old Sydney Mortar" instructions.

Spread the mortar between the bricks using the squeeze bag supplied. Using the glue spreader tool provided, an attractive concave grout is obtained.

CLEANING OFF

Brick dust, scratches, surplus mortar may all be cleaned off by mopping up with damp rag. Clean tools in water from time to time.

THE MAIN RULES ARE

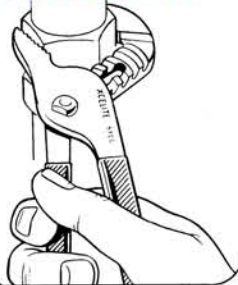
1. Go for realism—study normal brickwork for the effect you need.

2. Keep mortar lines open—this will allow ease to squeeze in the 'Old Sydney Mortar'. Trim width off some bricks if necessary.

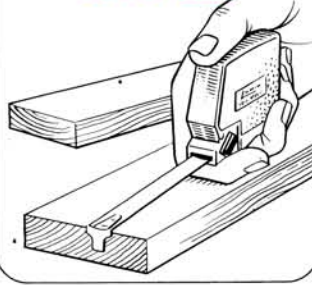
The Gidgee brickwork can be seen at the Building Development Display Centre, 332 Albert Street, East Melbourne. The Centre is open seven days a week Monday to Friday 9am to 5pm, Saturday 9am to 12 noon and Sunday 2pm to 5pm.

**Next time you
want to
grip, measure or file... use a helping hand kit**

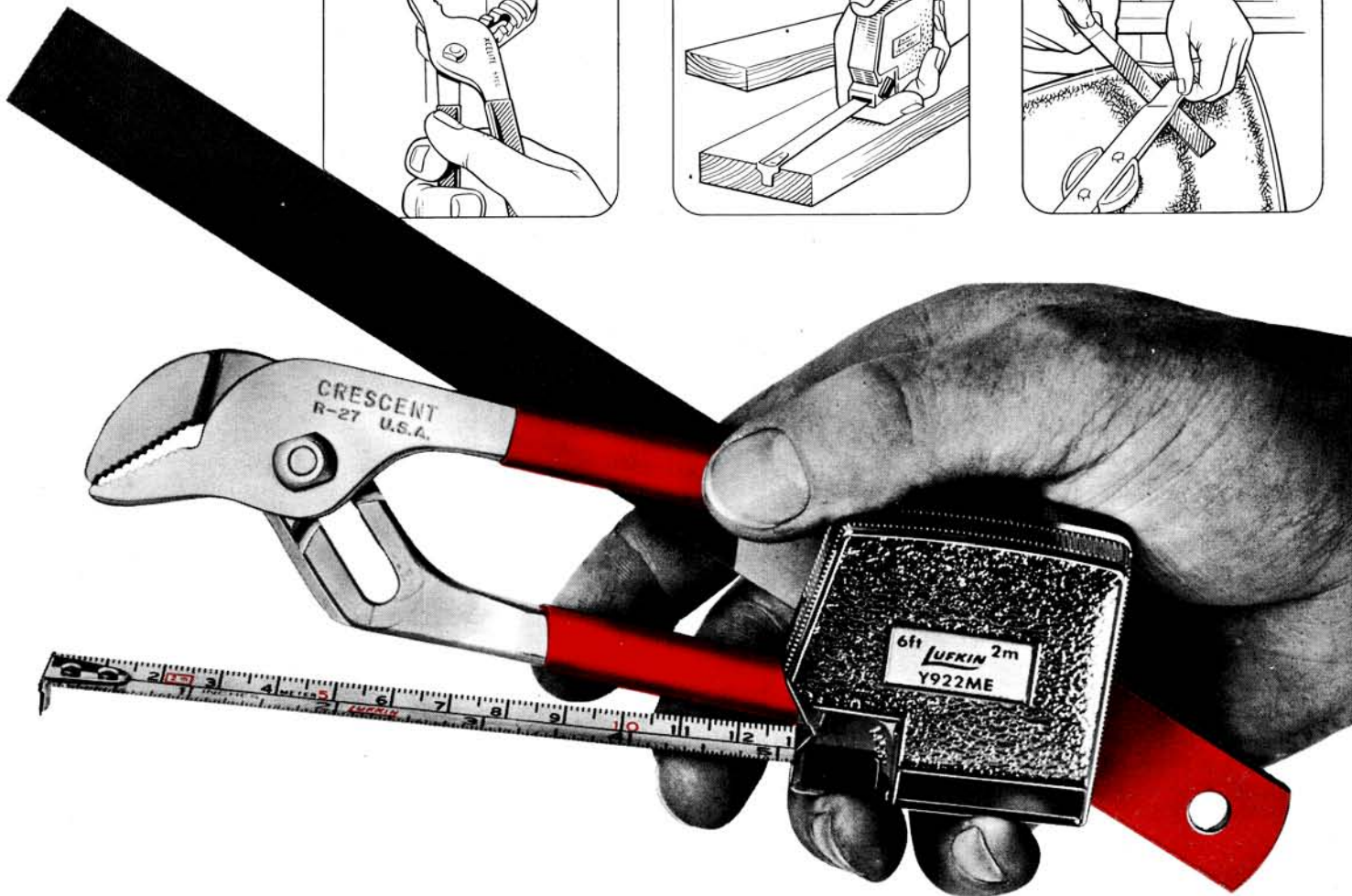
Crescent



Lufkin



Nicholson



**The
Cooper
Group**

CRESCENT · LUFKIN
NICHOLSON · WELLER · XCELITE

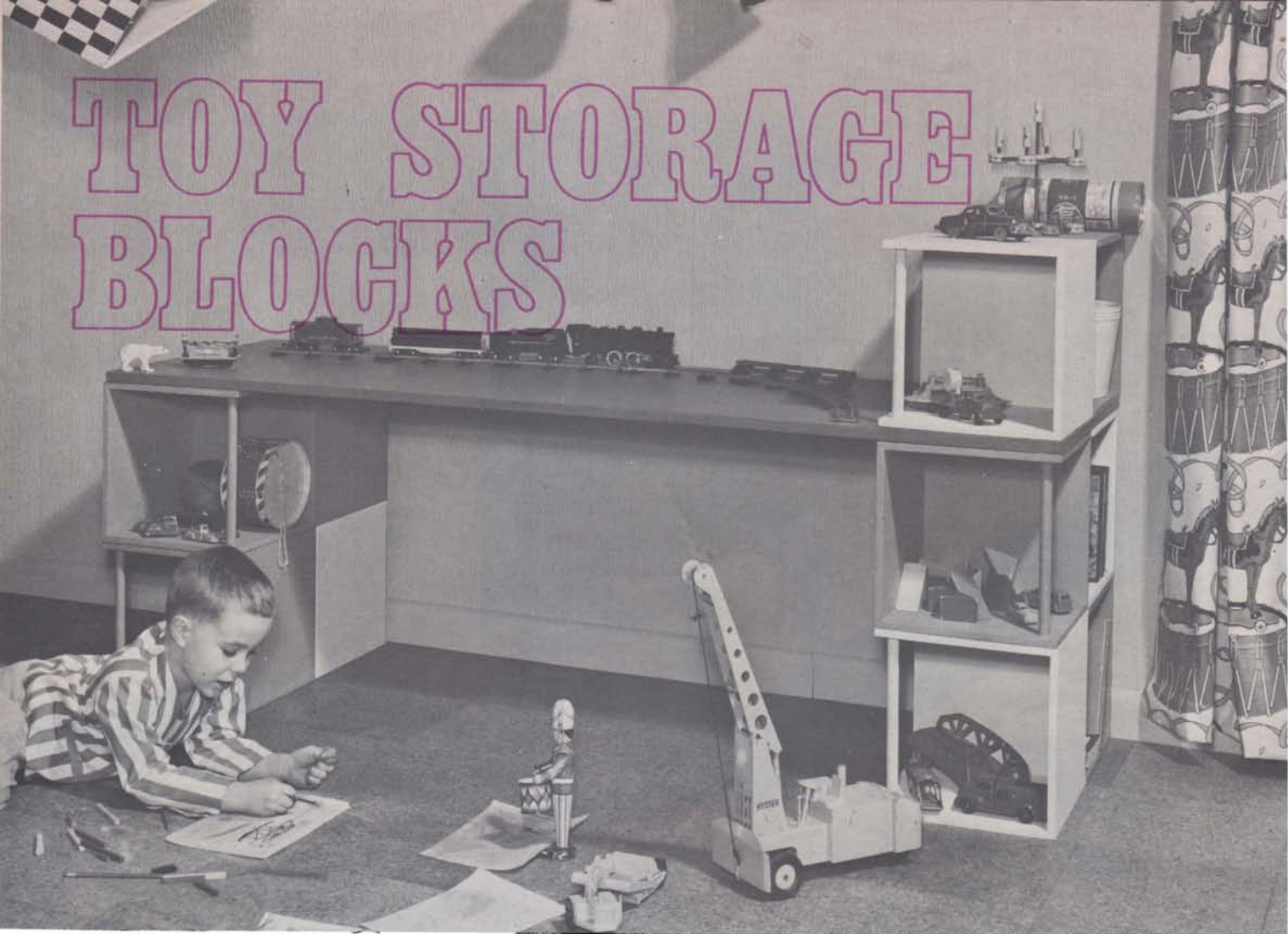
The Cooper Tool Group Limited,

P.O. Box 368, Nungong Street, Albury NSW 2640. Tel: 215511, Telex: 56995

The Helping hand kit gives you:

- **Crescent Multi-pliers**
– for gripping various shaped objects
- **A Lufkin Mezurlok 2m/6ft short tape**
– for easy-to-read measuring
- **A Nicholson Lawn and Garden file**
– for sharpening garden tools

TOY STORAGE BLOCKS



These versatile storage blocks stack together to make colourful, inexpensive furnishings for the youngsters' bedroom or playroom, desks, tables, cabinets or toy shelves. The units are simply sturdy opensided boxes built of easy to work plywood. In an evening or two a set can be made for the youngsters with ordinary hand tools.

CONSTRUCTION DETAILS

1. Use a straight edge to lay out the parts for the blocks on the plywood panel. Remember to allow for saw cuts.

2. After sawing out the pieces for each block, true all edges with sandpaper wrapped around a block of wood.

3. Next assemble the storage block, using resin glue and nails driven through the top and bottom into the sides. Fit the sides flush with the edges of the top and bottom. Check the block with a square as you assemble it to be sure that all sides are true.

4. Cut the $\frac{3}{4}$ " diameter hardwood

dowel to length. Drill pilot holes through the top and bottom of the block into the end of the dowel for $\frac{7}{8}$ " flat head wood screws, countersinking for the screw heads. Spread the ends of the dowel with glue before driving the screws.

5. Now drill $\frac{1}{4}$ " diameter holes for the bolts that secure the stacked blocks. Locate one hole just behind the dowel and another in the inside corner, measuring in $2\frac{1}{2}$ " from the corners along the diagonals drawn on the top and bottom of the block.

Locate these holes accurately to be sure they'll align with the homes in adjacent blocks.

6. Fill nail holes and screw heads with paste wood filler. Then smooth up the glued joints with a sanding block. Ease the corners and edges with sandpaper.

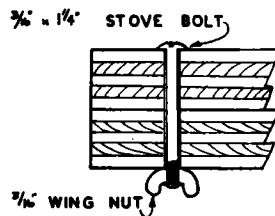
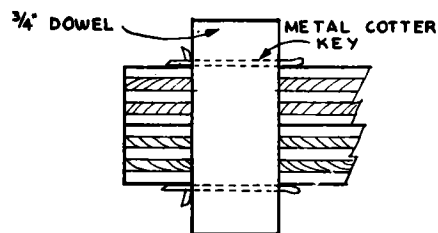
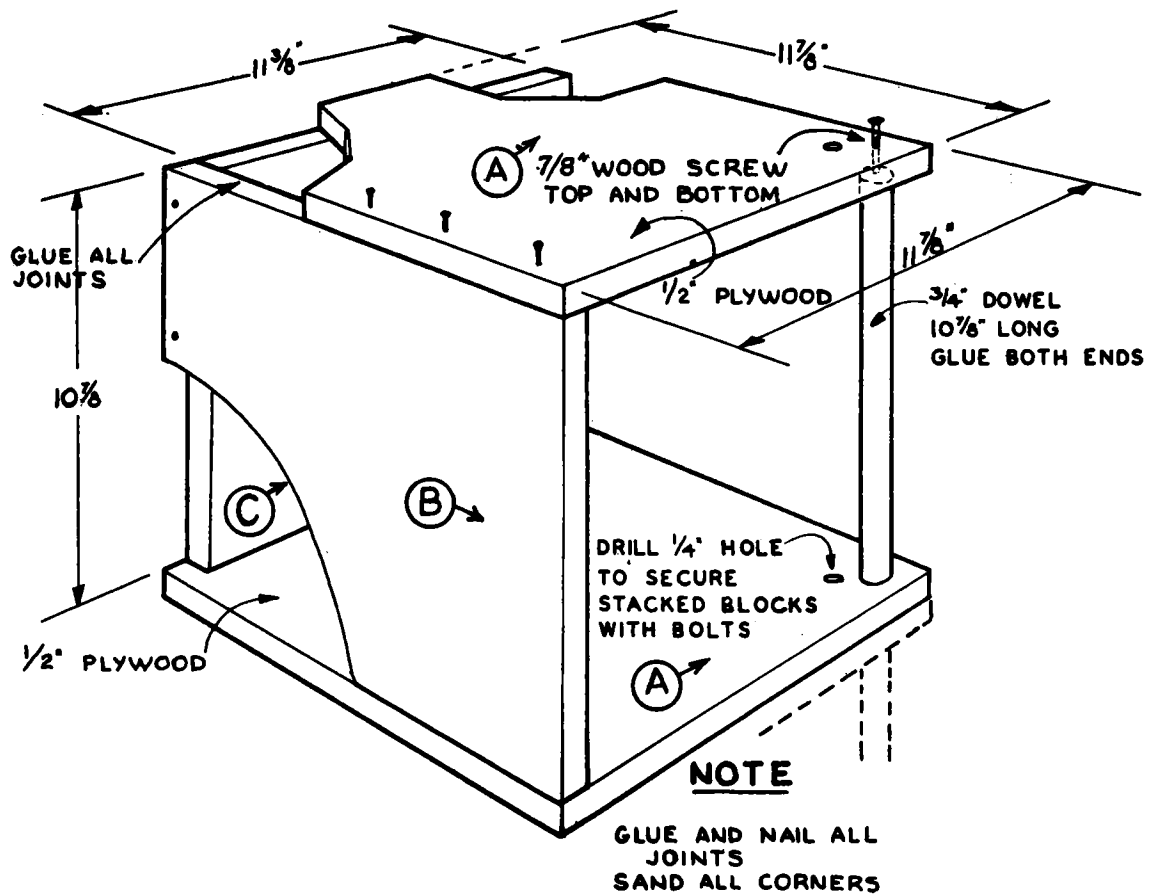
7. Finish the storage blocks with a prime coat of enamel undercoat followed with at least two coats of gloss or semi gloss enamel. Use bright colours, a different colour for each block.

What you will need

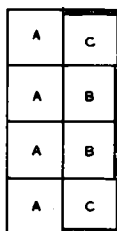
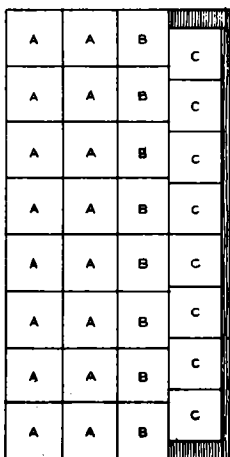
Parts schedule each block

Code	No. required	Size	Part identification
A	2	$10\frac{1}{2}$ "x $11\frac{3}{8}$ "	Top and Bottom
B	1	$11\frac{1}{8}$ "x $11\frac{3}{8}$ "	Side
C	1	$10\frac{7}{8}$ "x $11\frac{3}{8}$ "	Side
	1 Lin. Ft.	$\frac{3}{8}$ " diam.	Hardwood Dowel

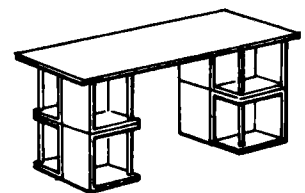
Miscellaneous: Nails, two $\frac{7}{8}$ " flat head wood screws, $\frac{3}{16}$ " x $1\frac{1}{4}$ " bolts with wing nuts, waterproof glue, finishing materials.



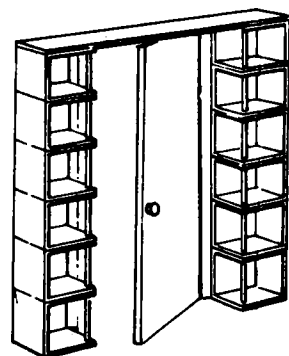
CUTTING DIAGRAMS



OPTIONAL DETAILS FOR CONNECTING BLOCK

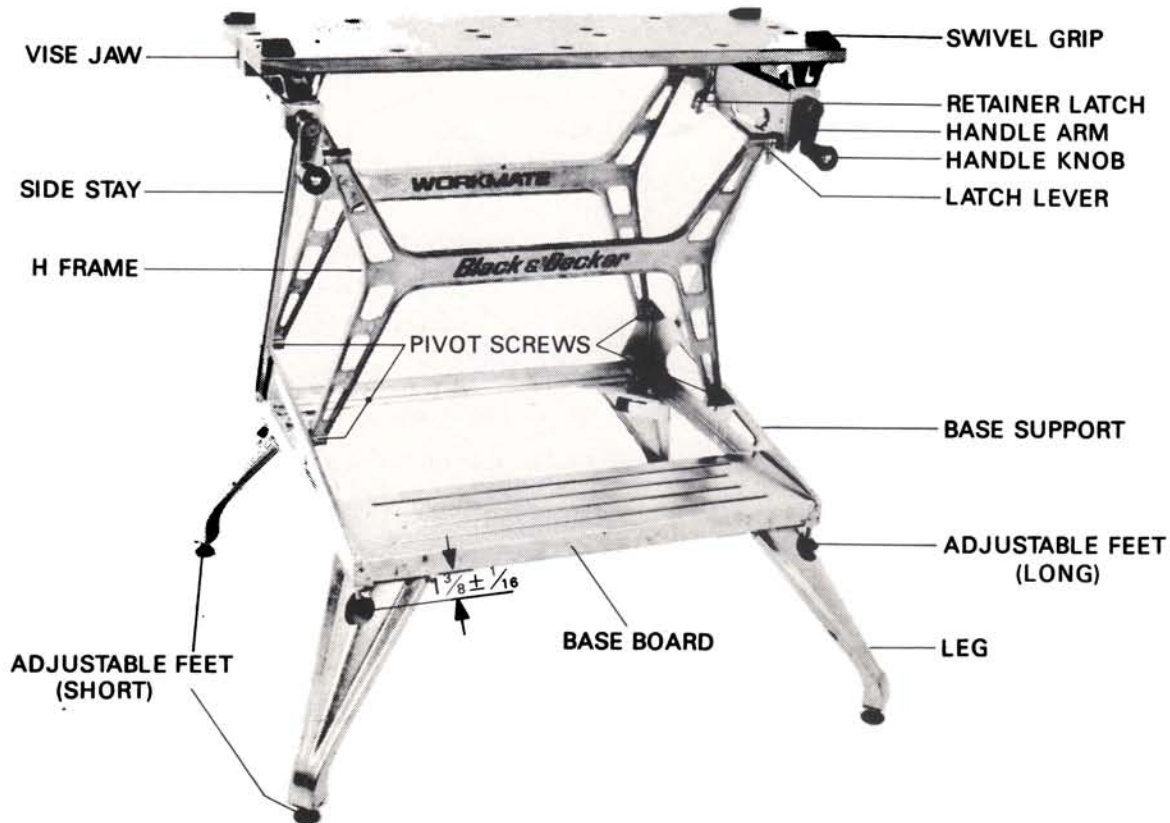


DESK OR TABLE



DOORWAY STORAGE

WIN A WORKMATE AND POWER DRILL!



DO IT YOURSELF AUSTRALIA AND BLACK AND DECKER, INVITE YOU TO ENTER THIS FREE COMPETITION TO WIN A SUPERB WORKMATE ALL PURPOSE WORK CENTRE AND VISE.

HOW TO ENTER:

In the panel we have listed some of the features of the Workmate. How would you rate their order of importance to the average do it yourself. Write the key letters, in order of choice in the numbered spaces on your entry coupon. For example if you think that "Rugged Construction Throughout" is the most important of all, write "B" in the box marked 1st. The letter of your second choice against "2nd", and so on for all eight.

The closing date is 30th Oct. 1976

A.

Carefully designed and manufactured.

B.

Rugged construction throughout.

C.

Enables a complete range of workshop tasks to be completed from the simplest to the most complicated.

D.

Can secure the most irregular shapes.

E.

Enables users hands to be free to hold tools properly and safely.

F.

Sets up easily into two working heights.

G.

Holds material safely and securely.

H.

One year guarantee.

Rules:

Each attempt must be fully completed in ink on the proper printed coupon cut from Do It Yourselfer Australia, and must bear the entrant's own name and address.

Every accepted entry will be examined and the prize awarded by the adjudicating committee to the competitor who shows the most skill and judgement in listing the eight features of the Workmate in the best order of importance to the average do it yourself enthusiast.

In the event of a tie, for the prize, a further eliminating test will be conducted by post between the tying competitors to determine the winner.

Any entry which does not comply with the printed instructions or is received after the closing date will be disqualified, as will any received mutilated or illegible, incomplete, bearing alterations, or with more than one key letter in each space. No responsibility will be accepted for entries lost or delayed in the post or otherwise.

The judges decision, and that of the publisher of Do It Yourselfer Australia in all other matters affecting the competition, is final and legally binding. No correspondence can be entered into.

The competition is open to all readers in Australia except employees (and their families) of Pioneer Publications, the printers of Do It Yourselfer Australia, or of Black and Decker. The winner will be notified, and the result announced in the earliest possible issue of this magazine.

FREE ENTRY COUPON

Post to Do-It-Yourselfer Australia Workmate Competition

9 Beaconsfield Parade,
Port Melbourne, 3207
P.O. Box 201.

My order of importance for the eight features is listed on the right. In entering this competition I agree to the rules as final and legally binding.

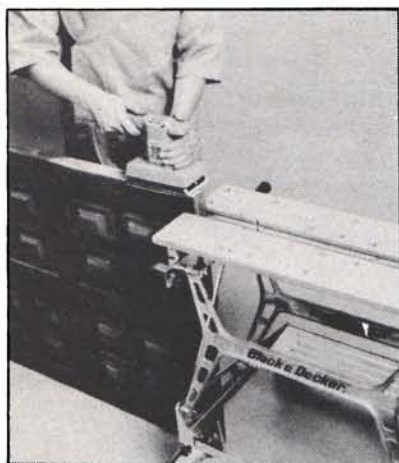
Name.....
(Mr/Mrs/Miss)

Address.....
(Block Letters)

..... Postcode.....

1st	
2nd	
3rd	
4th	
5th	
6th	
7th	
8th	

What WORKMATE can do...



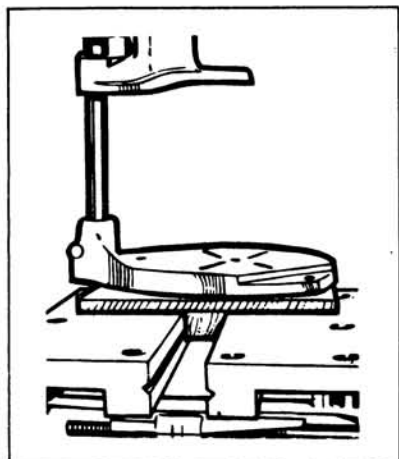
Strength and stability to handle the largest and most awkward sizes and shapes.



Special tasks won't mean special problems anymore. Routing can be easy and the results more professional.



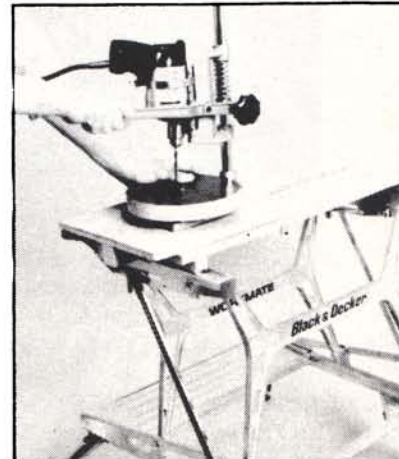
The Workmate brings the job up to where you can reach and see it, conveniently, even with hard-to-hold items.



The block on the underside of the board is held in the jaws of the Workmate. The power unit is secure and safe for use.



You'll want to use all of your power accessories more often. Take buffing—it's easier and more convenient with the Workmate.



Your power drill and drill press can go along with you on any job—across town or into the next room.

DO IT YOURSELF

HEATING



The cost of hiring skilled labour to do jobs around the house has reached such a peak that wherever a few dollars can be saved it's worth doing the job yourself.

Such is the case with a two-way electric heating system that can be installed in internal walls to direct heating to two separate rooms at the one time.

The system is known as Electricaire

and is designed to be installed in these walls to produce heating at three different levels.

It operates on medium, high and low ratings and is controlled by a thermostat which can be operated manually to provide the desired room temperature.

The unit itself cannot be completely installed by the handyman but there is a chance to economise a little by

cutting the required hole in the wall so that the unit can be installed and connected by the electricity system.

You should choose a position for the heater so that the heated air is directed towards the centre of the area to be heated.

The selected position should be adequately clear from furniture or other obstructions or this will limit good heat distribution.

The manufacturers recommend that the heater be installed no higher than 457 mm from the floor.

You then prepare the opening as shown in the diagram.

If the opening is in a conventional stud wall it is necessary to fit a nogging, about 4 in. wide and 2 in. thick, between the studs.

The top surface of the nogging should be flush with the bottom cut-out in the wall.

The cut in the wall should be 603mm high and 338mm wide and the thickness of the wall into which the unit is placed should be a minimum of 108mm and a maximum of 133mm.

Before the heater can be installed in the wall the back has to be removed by taking out the four screws in the back grilles.

Then carefully pull the back timber surround assembly towards you and remove it from the heater.

The unit should then slip easily into the space allowed in the wall.

Beyond this point the installation is not for the handyman as all electrical installations must be by a registered electrical contractor.

A display of heating can be seen at the Building Development Display Centre, 332 Albert Street, East Melbourne.

The Centre is open seven days a week Monday to Friday 9am to 5pm, Saturday 9am to 12 noon and Sunday 2pm to 5pm.



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ORBITAL SANDER

Cat. No. 5550

Automatic orbital action for perfectly smooth professional finish. Sands into corners with ease.



JIGSAW

Cat. No. 5530

Cuts intricate shapes to 25mm (1") depth in hardwood, 38mm (1½") in softwood. Will also cut light gauge ferrous and non-ferrous metals.



Black & Decker

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WORKMATE

It's a foldaway, portable work centre, giant vise and sawhorse all in one!



A few years back putty was the primary timber filler and was the common cure for ill-fitting joinery, but its efficiency does not compare with the adhesive fillers of today. The common putty was retained in a cavity by friction and not through any adhesive properties.

Today, the adhesive fillers bond into a cavity and are not likely to crack, shrink or fall out.

The two such materials I use are "Polypatch" and "Plastibond". Both are used with a hardening agent and can fill cavities in timbers or metals. After setting, they can be filed, sanded or drilled. I derive further economy from their use because I often use them in conjunction with small timber scraps, match sticks or similar materials.

In my classroom tuition, I deliberately mutilate a piece of timber beyond all reasonable likelihood. I gouge ugly cavities, drill $\frac{1}{4}$ " and 1" holes and split away sizeable edge lengths. We then start the process of repair that will enable the wrecked timber piece to be dressed to a good quality furniture piece.

Let's take the minor damage first. These may be holes and cavities the size of a pea or elongated splittage, say $\frac{1}{4}$ " wide. The filler and the hardener are mixed according to the maker's directions and proportions. For mixing I use a flat ice cream stick as used for chocolate-coated ice creams. Both the filler (called putty) and hardener must be vigorously mixed by a beating action. A mild circular stir is not adequate.

Using the stick the filler is now applied to the damage and brought up a little higher than the timber surface. After 20 to 30 minutes, according to the amount of hardener used, the filler is ready to be sanded off flush. An electric drill with a medium abrasive paper on a rubber-backed disc is the ideal initial method.

We may now look at the larger cavities. Some may be as large as a



TIMBER REPAIR — modern methods make it easier

by Joe Shaw

that the inserted scraps are not built up to the top of the timber surface. It is best to leave an $\frac{1}{8}$ " for the final layer of filler. This final application must be pressed in hard to ensure that the filler oozes down between the scraps in one complete solidified fill. The repair, when hard, will be tightly compact.

Now finally let us look at the situation where the edge of the timber is split away altogether. The filler in its normal application would not be wainut for instance. This represents a fairly large cavity and would use a considerable amount of filler. I economise here by affecting a compromise. I apply the prepared filler to the bottom and walls of the damaged area, then insert small wood scraps, bits of cork, possibly even sawdust into the cavity. It is important, however,

adequate for large edge repairs. We need real wood here. For this reason I teach my pupils the art of letting in a wood replacement that can be planed down finally to the original alignment of the timber piece.

The process is both fascinating and simple. Let us suppose the broken away edge requires a piece of wood say 4" long by $\frac{1}{4}$ " wide, and we will assume the timber under repair is about $\frac{3}{4}$ " thick. Here I would take a piece of pine or hardwood that will meet these specifications with allowance for finishing down. I do not worry about matching the exact same timber in general repair work.

The advantage of this method is that we are not looking to make flat areas of contact between the inlet piece and the timber's damaged face, as in the case of a glue job.

I proceed this way: I prepare the putty and hardener, then outter it on with the ice cream stick to the two contact faces. This needs to be done quite liberally as the two pieces are going to be cushioned together until the filler just starts to ooze out. The two pieces must not be brought up hard together. Actually we want the filler to be the meat in a sandwich.

When the repair has hardened out, the necessary planing or disc sanding will be required, and if a fine finish is required hand or orbital fine sanding would give a quality look.

Remember, however, that stains and varnishes are transparent and will not hide this repair work. It will take paint to do that. However, we can still get a wood grain approximation with the antique wood tone paints. The base coat will hide the repairs and the toner will produce the streaky grains so that we can get a reasonable and satisfactory similarity to real timber. I use walnut, teak and mahogany toners to get pleasing results.

My classes find the whole operation simple, economical and satisfying.

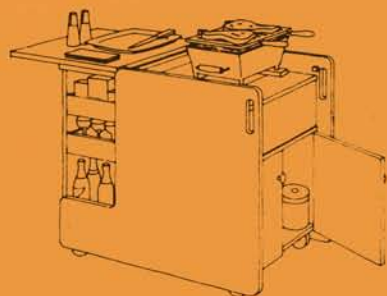
Joe Shaw,
McEwan's Handyman Instructor.

great for

outdoors...



HOSTESS CART



This hostess serving cart provides ample storage space for a hibachi, spices, glasses, tall bottles, utensils and other supplies. A fold out counter top opens up a lower shelf that can hold a hibachi or other appliance, which may be stored directly underneath. Below that is a deep utility cabinet at one end, and five storage drawers at the other end.

The cart is 31" high (on large easy to roll casters) by 37" long and 24" wide, made of $\frac{1}{4}$ " plywood. Tops are laminated.

Basic woodworking tools are all you need to build the cart; a power drill and sabre saw will speed the work. Before starting, study the plans carefully so details are understood.

Your local building materials dealer can provide most of the supplies you'll need.

CONSTRUCTION DETAILS

Plans and material list are complete for building one serving cart. Note that figures in plywood panel layout show rough and finish dimensions. For exact dimensions, refer to "what you'll need". The parts list for plywood and timber indicates size, use, and fasteners. All parts are lettered and correspond to lettered parts on panel layouts and drawings. Screw holes should be predrilled and countersunk, and parts should be glued wherever possible.

CUTTING

Lay out plywood panels for cutting as shown in panel layouts. Use a straightedge and carpenter's square for accuracy. Allow for saw cuts when plotting dimensions. If in doubt, check the width of your saw cut. Lightly mark pieces for identification, then cut them out and true edges with a coarse sanding block. Fill plywood edges that will be exposed with surfacing putty. Allow to dry, then sand smooth. Cut timber framing, supports and aluminium channels to dimensions as you proceed.

FAMING, ASSEMBLY

Fasten J and T parts to bottom of

What you will need

Parts Schedule	Amt.	Use	Size	Fasteners
A	2	Sides	36"x29"	
B	1	Bottom	22 $\frac{1}{2}$ "x31 $\frac{7}{8}$ "	(7) 2"x10 flathead screws
C	1	Back	22 $\frac{1}{2}$ "x26"	(5) 2"x10 flathead screws
D	1	Partition	22 $\frac{1}{2}$ "x25 $\frac{1}{4}$ "	(6) 2"x10 flathead screws
E	1	Partition	10"x25 $\frac{1}{4}$ "	(7) 2"x10 flathead screws
F	1	Front	7 $\frac{1}{2}$ "x22 $\frac{1}{4}$ "	
G	1	Shelf	22 $\frac{1}{2}$ "x22"	
H	1	Top	22 $\frac{1}{2}$ "x12"	
I	1	Top	22 $\frac{1}{2}$ "x21-13/16"	(3) 1" butt hinges
R ¹	1	Top	8"x22 $\frac{1}{4}$ "	(3) 1" butt hinges
R	2	Tops	7"x22 $\frac{3}{8}$ "	
S	2	Doors	11-1/16"x15 $\frac{1}{8}$ "	

LUMBER

Parts Schedule	Amt.	Use	Size	Fasteners
J	2	Under bottom	$\frac{1}{4}$ "x $\frac{1}{4}$ "x23 $\frac{3}{4}$ "	(12) 1 $\frac{1}{4}$ "x10 flathead screws
K	2	Partition to side	$\frac{1}{4}$ "x $\frac{1}{4}$ "x14 $\frac{1}{4}$ "	(8) 1 $\frac{1}{4}$ "x10 flathead screws
L	2	Under hibachi shelf	$\frac{1}{4}$ "x $\frac{1}{4}$ "x20 $\frac{3}{8}$ "	(12) 1 $\frac{1}{4}$ "x10 flathead screws
M	1	Under hibachi shelf	$\frac{1}{4}$ "x $\frac{1}{4}$ "x21"	(6) 1 $\frac{1}{4}$ "x10 flathead screws
N	4	Under Formica top	$\frac{1}{4}$ "x $\frac{1}{4}$ "x10"	(16) 1 $\frac{1}{4}$ "x10 flathead screws
O	2	Under hibachi folding top	$\frac{1}{4}$ "x1 \pm "x21 $\frac{1}{8}$ "	(10) 5/8"x4 flathead screws
P	2	Under hibachi folding top	$\frac{1}{4}$ "x $\frac{1}{4}$ "x8"	(8) 1 $\frac{1}{4}$ "x10 flathead screws
Q	2	Stops under Formica folding top	$\frac{1}{4}$ "x $\frac{1}{4}$ "x1"	(4) 5/8"x4 flathead screws
T	2	Triangular glue block by casters	$\frac{1}{4}$ "x $\frac{1}{4}$ "x2 $\frac{1}{4}$ "	(Nail or screw)

HINGES, CASTERS, ETC.

Quantity	Size	Description
10	$\frac{1}{4}$ "x5/16"x10-13/16"	Aluminium channel
20	5/8"x4	Flathead screws (to attach aluminium channels)
1		Continuous hinge
2		Continuous hinge
1 set	3"	Rubber tread plate mount casters
3	5/8"	Leather strap for binding handles (optional)
2		Knobs for cabinet doors
2		Catches for cabinet doors

Note: See drawer detail for drawer parts, and Formica top drawing for Formica parts.

MISCELLANEOUS

Surfacing putty for filling exposed plywood edges, as needed. Sandpaper, wood glue, and contact cement (for Formica laminate), as needed. Non-lead base undercoat and finish coat of high grade exterior type enamel for plywood and timber surfaces, as needed. (Optional: Clear sealer for plywood edges.)

B, and complete all framing as shown in drawings and exploded view. (Note that O parts get fastened to A parts, and P parts get fastened to O parts.) Then screw aluminium angles to C and D parts (see drawings for height dimensions).

After parts are framed, fasten partitions together, and screw back C to partition E. Set this assembly on bottom B and fasten C to B.

Laminate tops I and H as shown. Then screw framing (from underneath) to Top H. Turn assembly on side and fasten one A side to assembly (with part G in place). Then turn assembly over and fasten other A side. Return assembly to upright position, hinge R parts as shown, and fasten

R to F, and R(1) to P. Now hinge tops I and H with continuous hinge.

Fill screw holes with surfacing putty, allow to dry, and sand smooth. Also, sand sharp edges off plywood and timber corners where necessary. Then install casters and wipe unit clean for painting.

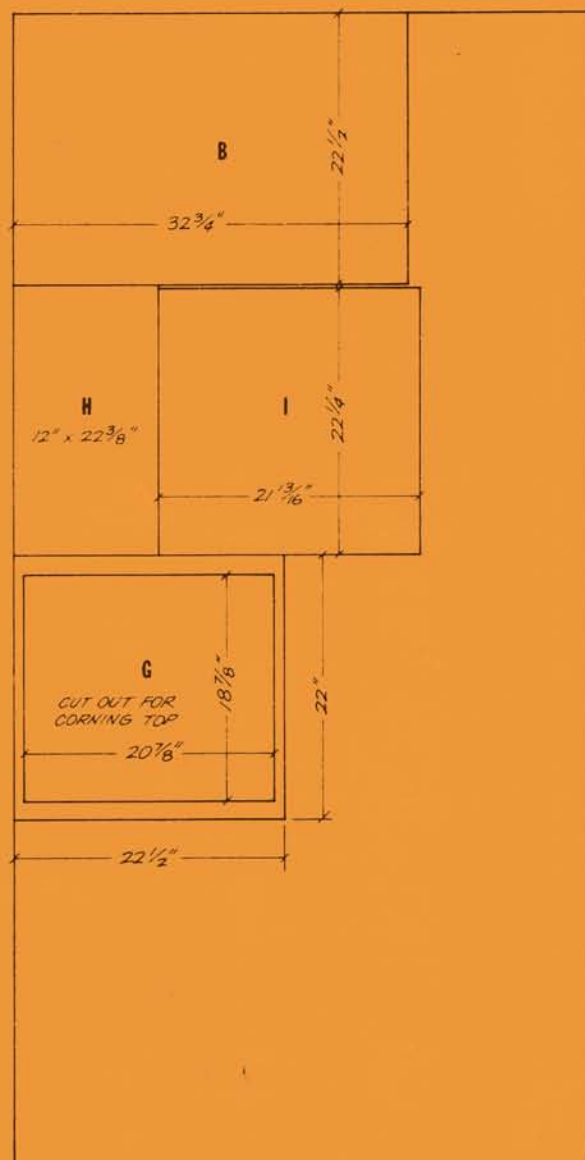
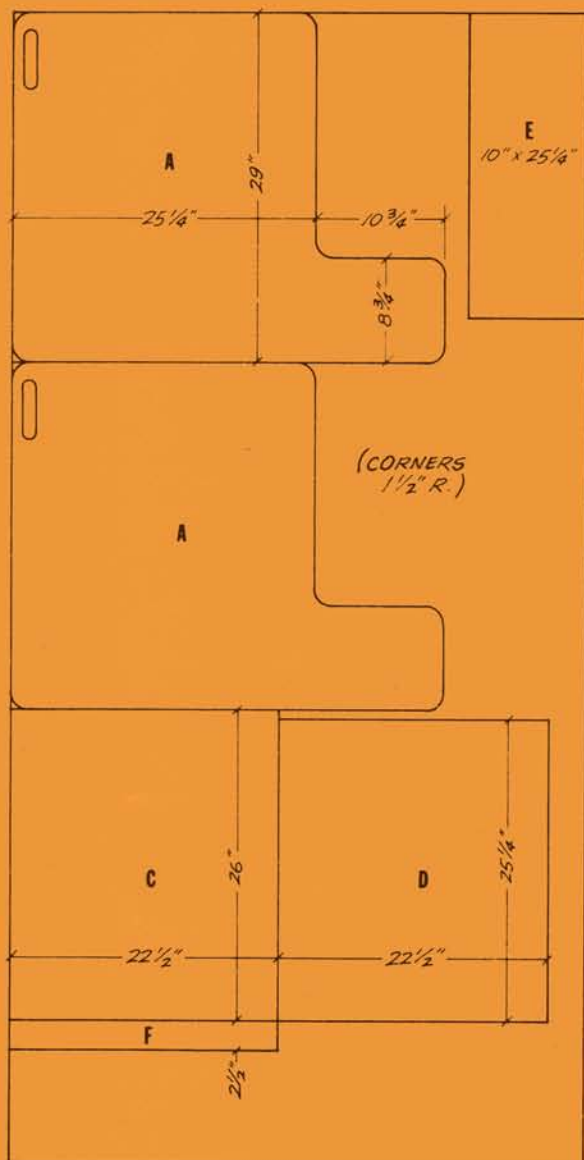
Paint cabinet doors and drawers along with entire unit. Plywood edges may be finished with clear sealer, if desired. If hibachi or heating appliance is used, be sure folding shelf and sides are protected against heat. When all painting is completed and thoroughly dry, fasten knobs to cabinet doors, hinge doors to cabinet, and install catches. Complete by wrapping handles with leather, if desired.

DRAWER CONSTRUCTION

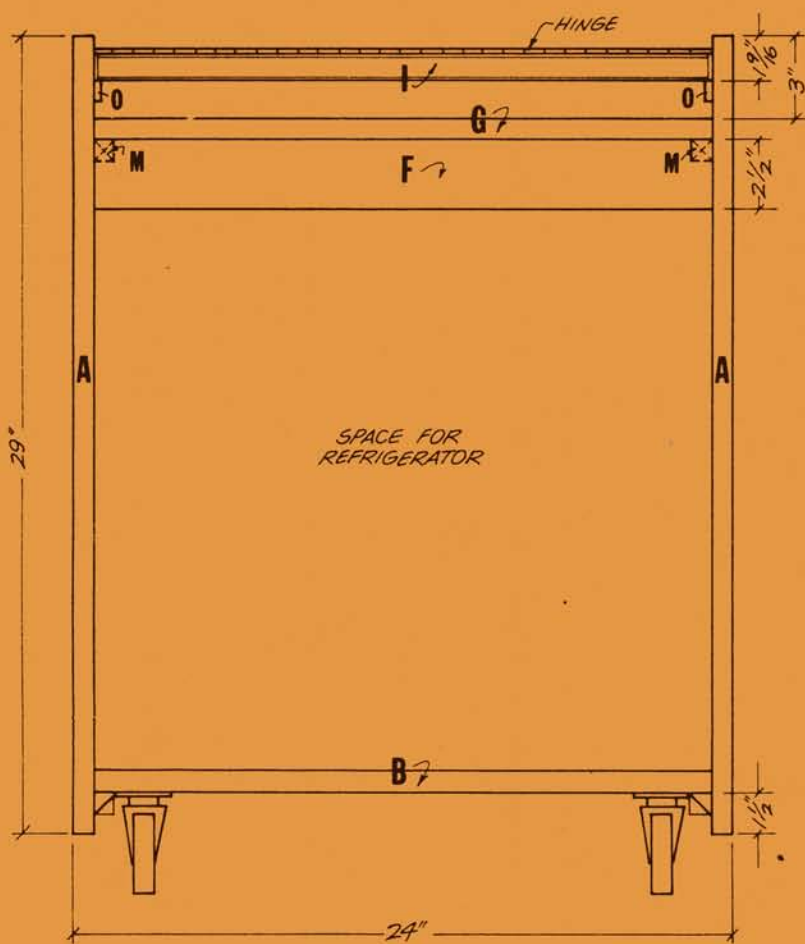
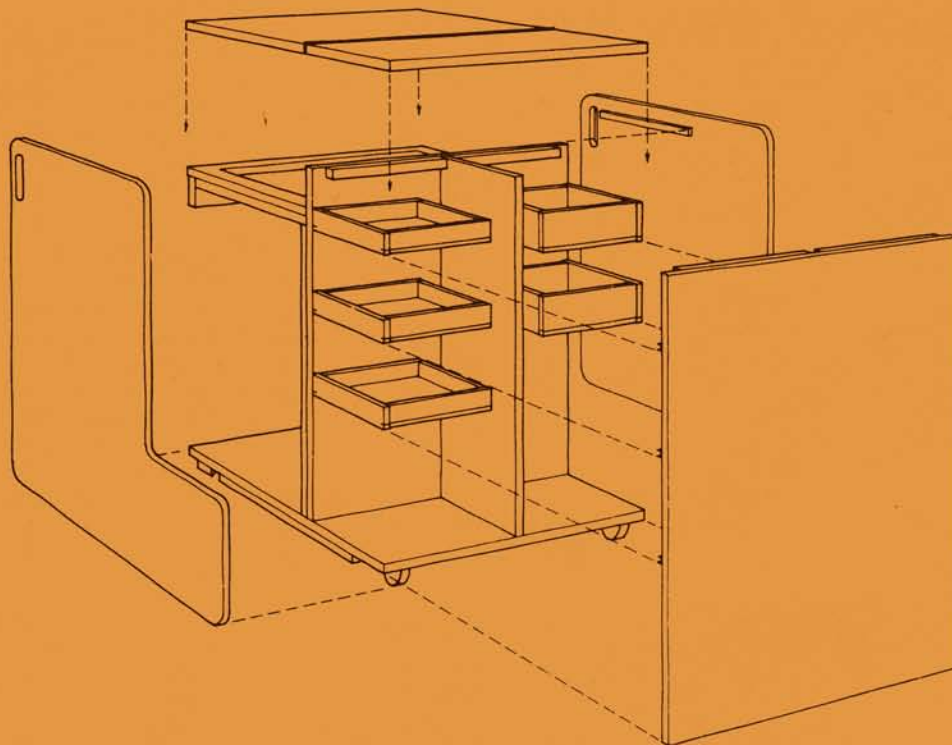
The panel layout shown for drawer parts provides all the parts needed. If only one cart is built, reduce the dimensions by half.

Cut out plywood parts as described. Glue and nail together the drawer sides, fronts, and backs as shown. Then glue and nail bottoms to drawer assemblies, and countersink nailheads. Saw cut drawer fronts $\frac{1}{4}$ " deep on each side (as shown) to accept edges of aluminium angles. Fill nail holes with surfacing putty, allow to dry, and sand smooth. Sand sharp corners off plywood edges, wipe drawers clean and paint.

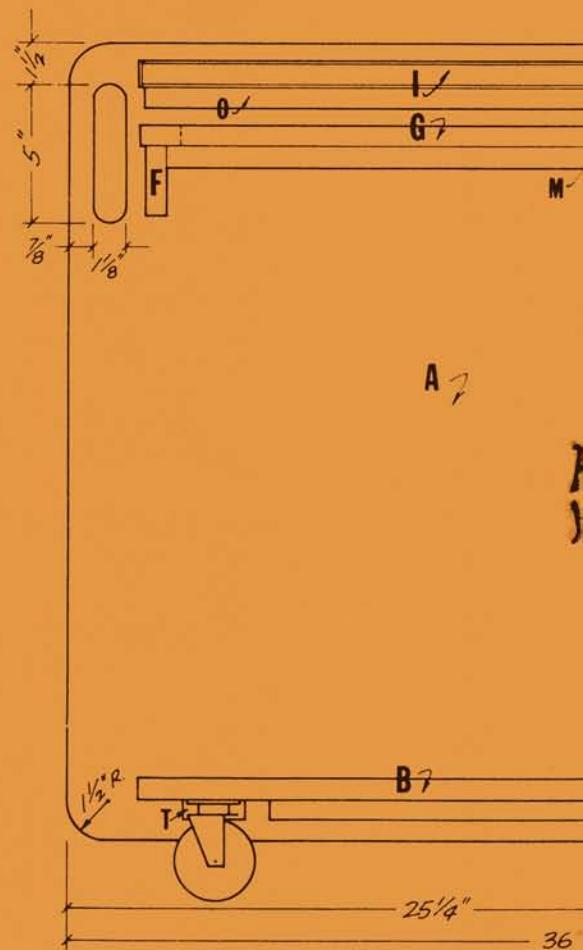
cutting layout



TOP V

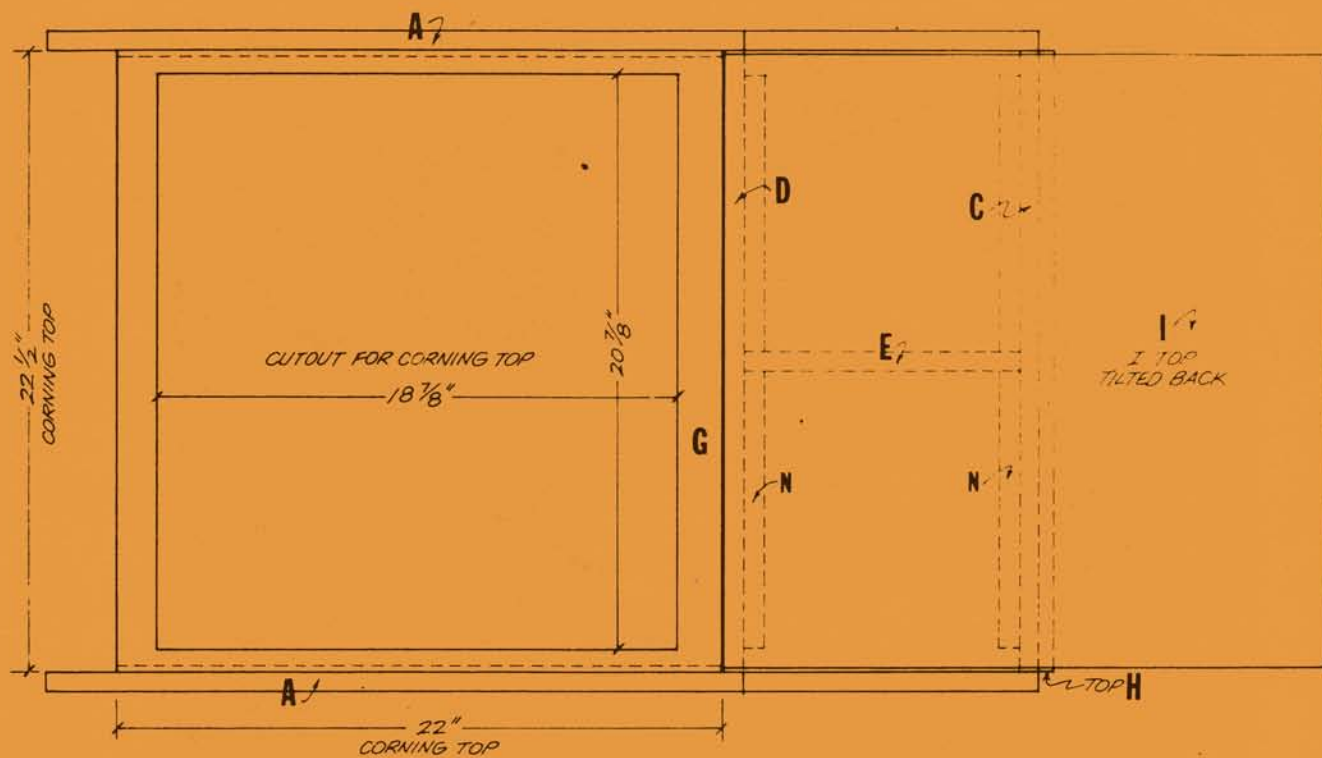


FRONT VIEW

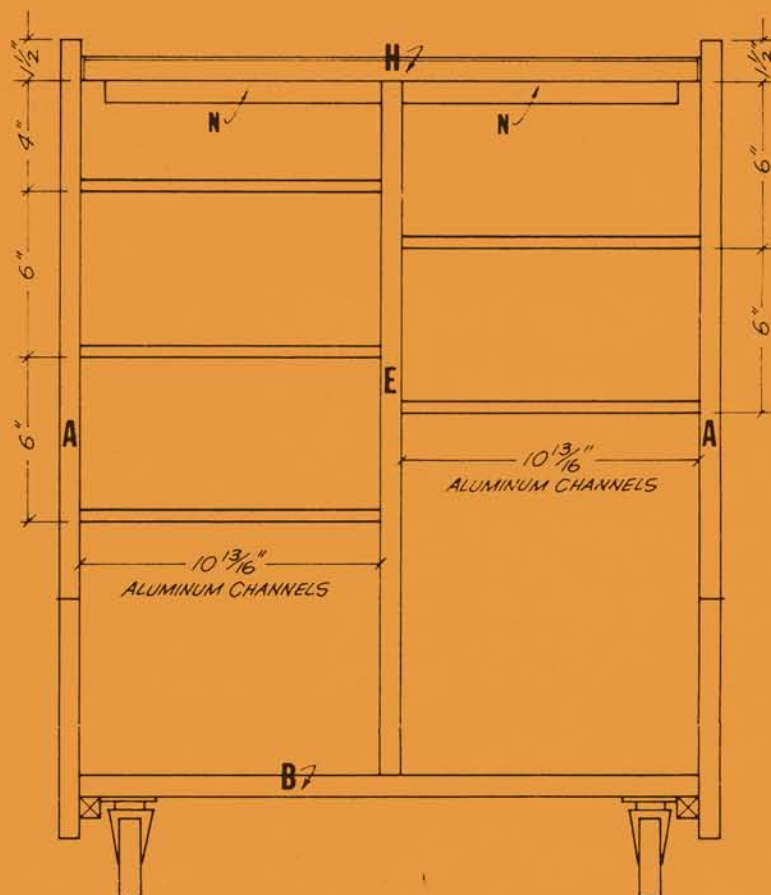


(SIDE) SE

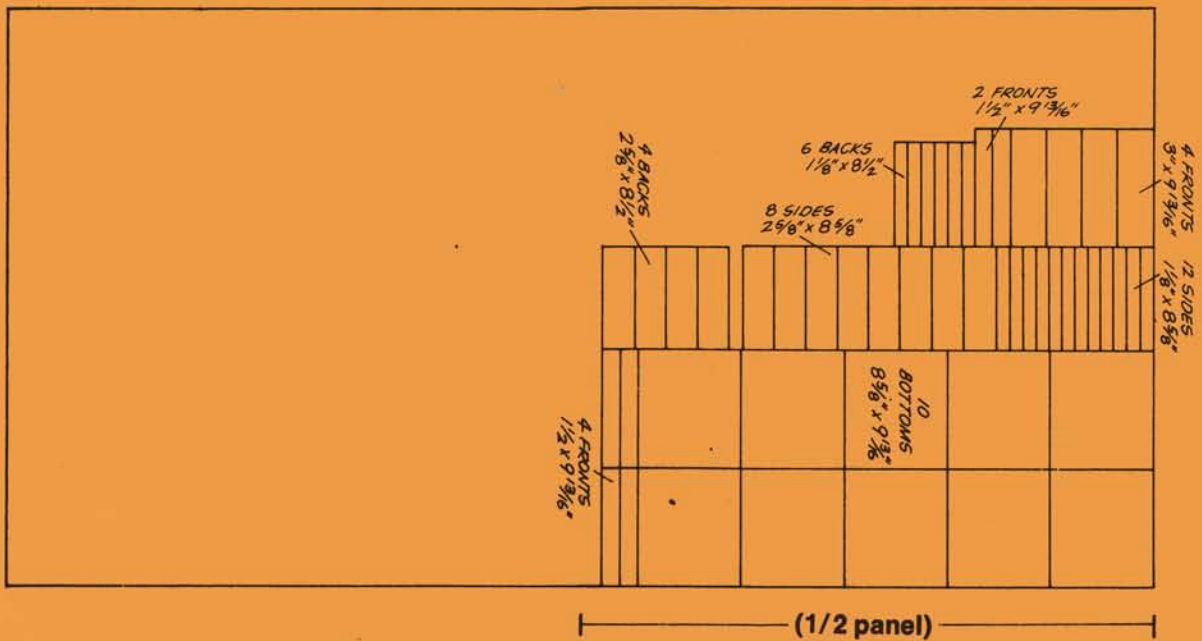
VIEW

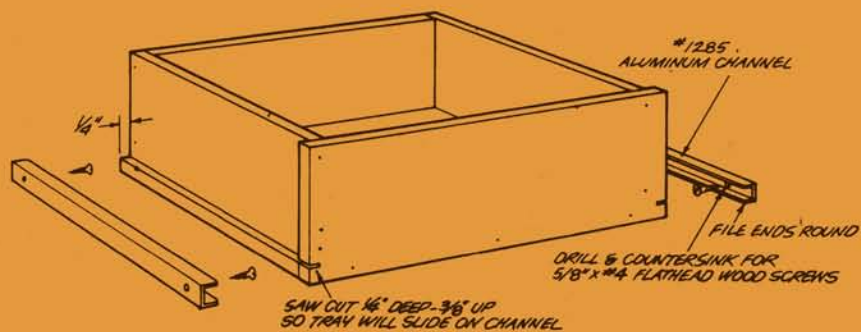
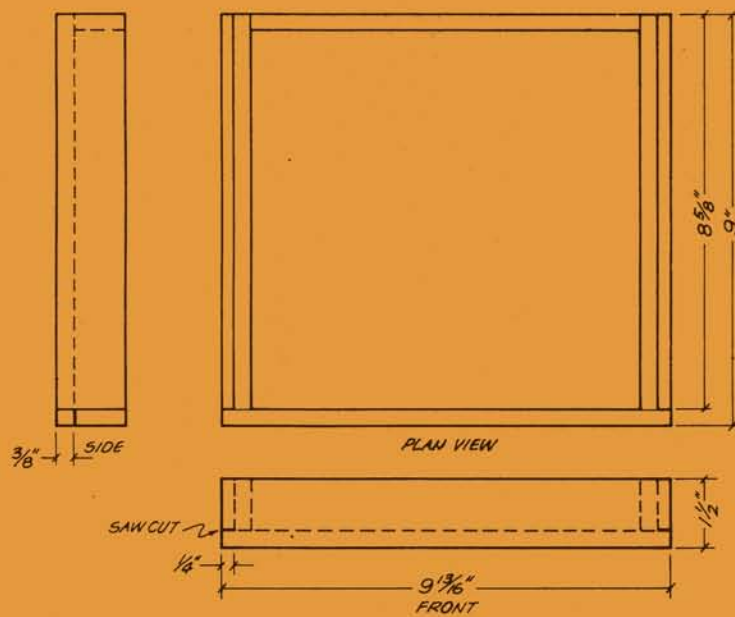
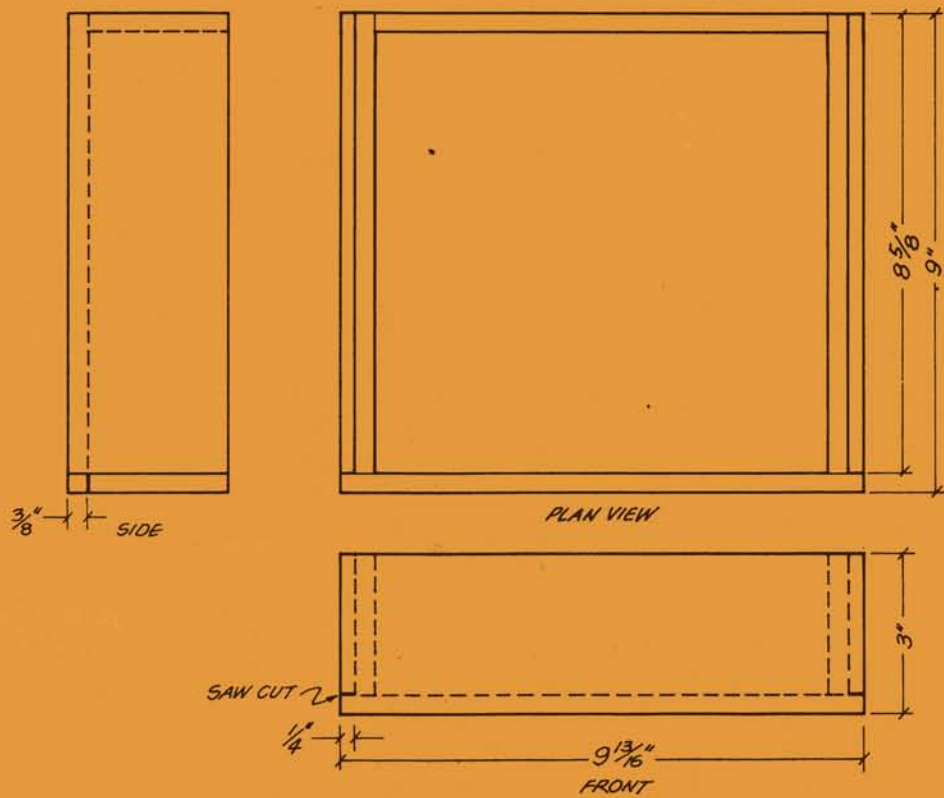


SECTION



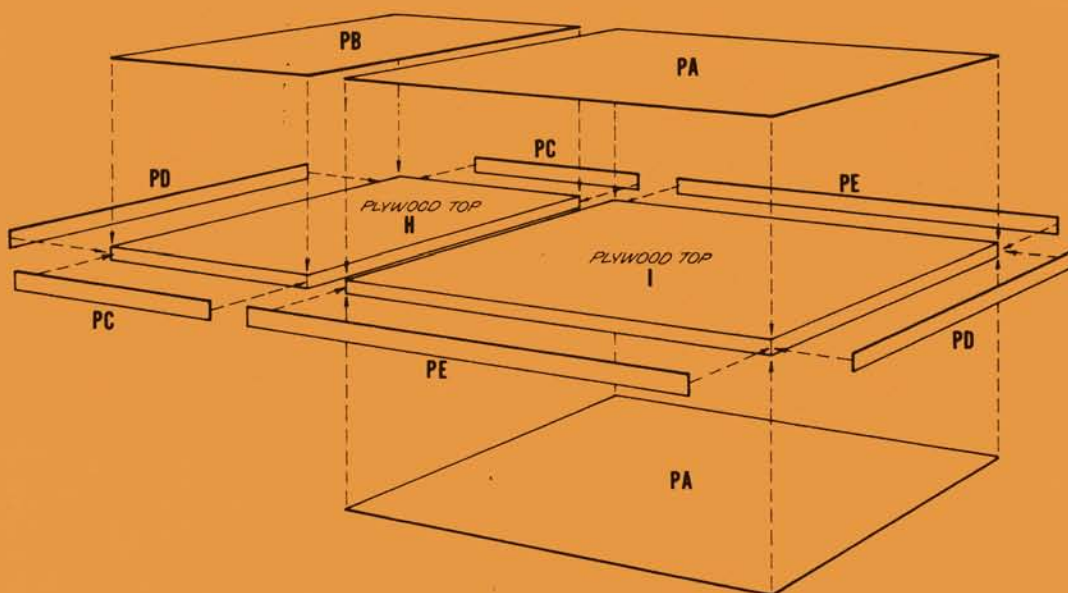
(BACK) SECTION



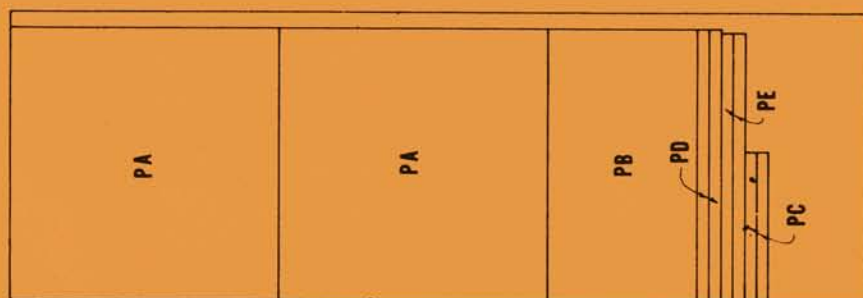


formica laminate

The cutting layout for Formica laminate is shown. It provides enough material to laminate counter tops on one cart. Laminate ends, long edges, to tops and bottoms as shown. If you prefer not to do the laminating yourself, check with a cabinetmaker or laminating shop to do this work for you.



Location of Formica on plywood parts.
(See construction text for laminating sequence.)



**1/16" Formica (or equal)
laminate, approx. 2'x4'.**

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Rejuvenating Old Furniture

These days, with inflation running high and everyone feeling the pinch of the shrinking dollar, most housewives are racking their brains for ways to save money.

Most of us are houseproud but since this tends to involve expenditure new furniture is something we do without when money is short.

But there is an entertaining way of satisfying this instinct AND saving money.

Think OLD instead of NEW when it comes to buying furniture, and I don't mean antiques.

With a little imagination even the most abused, ugly and kicked about old table or chair can be made to look attractive.

Don't sneer at those old, wooden kitchen chairs and wonder what they would be good for except firewood. Imagine how they'd look stripped down, painted yellow and fitted with bright red cushions on the seats. They'd do wonders to brighten up your kitchen or breakfast nook.

One very easy way of rejuvenating old furniture is to stain it with Estapol. You hear talk of Estapoling everything from the kitchen dresser to the bedroom wardrobe, but how do you actually do? Here's how.

Perhaps you need a new coffee table? How about cutting the legs off that unused kitchen table in the garage and staining it, there is a wide range of modern and antique colours to choose from.

Select one that suits the timber of your furniture and tones in with the rest of your decor.

First the table must be stripped of old paint and varnish back to the bare wood. Any residue is then removed

with a mixture of equal portions of mineral turpentine and kerosene.

Next the furniture should be sand-papered along the grain to avoid scratches, using a medium paper and finishing off with a fine, Number 0, paper.

Now the stain can be liberally applied with a cloth pad or paint brush. It should not be rubbed out too thinly or the affect will be streaky.

Leave the surface to dry for about five minutes then wipe it lightly along the grain with a clean, soft cloth. After at least four hours a filler (to conceal the timber grain) or coating (for a lasting oiled look) can be applied.

Timber furniture can also be stained to retain and enhance a natural colour using a clear enamel or plastic finish, satin or gloss.

Clear finish can be applied straight to a well-sanded surface if the timber is close grained. But for coarse grains it is best to use a filler-stainer to conceal the grain before applying clear finish.

So get to it. All you need is a few paint brushes, soft cloths, a paint scraper, turpentine, kerosene and paint, plus time, patience and a little imagination and you can do wonders to revitalise your home or provide interesting old furniture for a new one.

But without buying any fittings, old or new, there are plenty of small touches you can make around the house to add a touch of newness.

What about those old picture frames? They look rather drab and ordinary. Why not paint them a bright orange and buy some toning prints.

Even something as simple as that old flower pot painted bright red or blue would add a real touch of colour to the kitchen or bathroom you find so dull.

how to

USE A HAND ROUTER

The portable hand router may be used for routing, shaping, joint cutting, power planing, and other machine tool operations.

Routers run at speeds averaging from 18,000 to 35,000 r.p.m. compared to a normal speed of 2,500 r.p.m. for a $\frac{1}{4}$ " drill or 5,000 r.p.m. for a circular saw. Various types of bits may be fastened to the chuck. These bits are shaped for use in making dovetail joints, rabbets, grooves, veined lines, and carvings. A special attachment makes it possible to use the router motor for power planing.



Router bits must be kept extremely sharp to cut smoothly and avoid burning the wood.



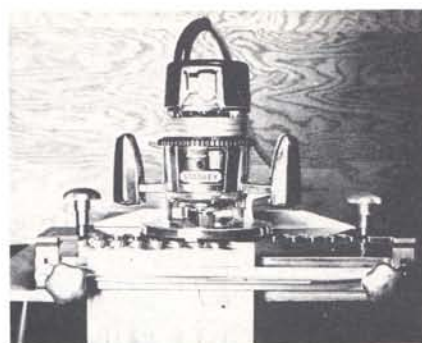
Procedure for Cutting a Dovetail Joint with the Hand Router

1. Square the pieces of stock that are to be joined. If a drawer side is to be dovetailed to the overlapping drawer front, the stock for the drawer front should be $\frac{3}{4}$ " thick and the stock for the drawer sides also $\frac{3}{4}$ " thick.
2. Make the drawer front $\frac{1}{4}$ " wider than the back to allow for lip.

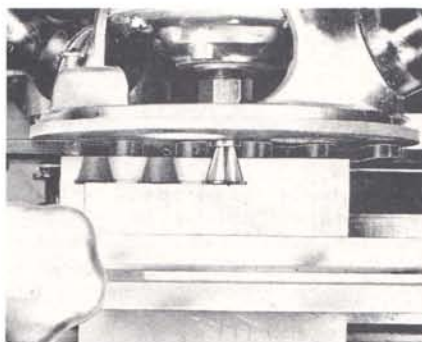
3. Cut a rabbet $\frac{7}{16}$ "s deep and $\frac{3}{8}$ " wide around the back edges of the drawer front (see fig. 1).



4. Mount the dovetail attachment on a work-bench and fasten it in place with two screws. The edge of the attachment should extend about $\frac{1}{4}$ " over the edge of the bench.



5. Clamp the stock for the drawer side into the attachment in a vertical position, with the inside of the drawer side turned out toward the operator.



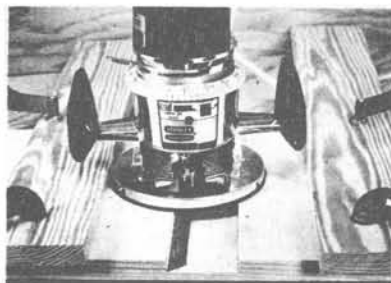
6. Lay the drawer front on the dovetail attachment and clamp it in place with the end grain of the drawer front touching the face of the drawer side and with its edge against the alignment pin. The end of the drawer side and the inside surface of the drawer front should be even.

7. Place the dovetail finger template in position on top of the stock and clamp in place.
8. Fasten the dovetail bit in the router chuck and screw the template bushing, to the base of the router.
9. If desired, fasten two pieces of scrap wood in the dovetail jig and make trial cuts to get proper depth adjustment. The scrap stock must be the same thickness as the drawer parts.
10. When a proper fit is obtained, make the finished cuts on the drawer parts.

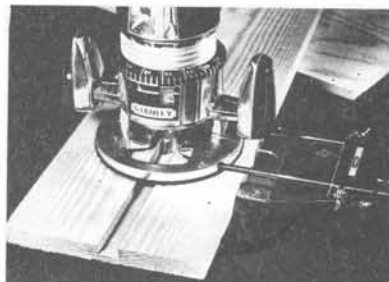
Note: Since dovetail cutting attachments vary according to the manufacturer, the operational directions accompanying the make being used should be studied.

Procedure for Cutting a Dado or Groove with the Router

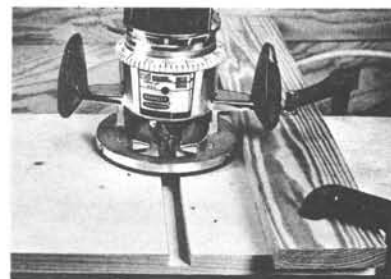
A dado is a rectangular channel cut across the grain of the wood. It is frequently used to fasten shelves of bookcases and other cabinets to the sides of the case.



A groove is similar to a dado but it runs the same direction as the grain of the wood. It is used to fasten drawer bottoms to the inside surfaces of the drawers, for panel work, and for other cabinet construction.



1. Insert a straight router bit in the router chuck. The bit should be the same diameter as the thickness of the piece that is to be inserted in the dado.
2. Set the bit to the depth desired and make a trial cut on scrap stock.
3. Mark the location and the width of the dado or groove to be cut.
4. If it is necessary to make the dado or groove wider than the diameter of the router bit available, set the straight gauge attachment, to the width necessary to cut one edge of the dado and make the first cut. Re-set the gauge attachment and make additional cuts to get the width desired.



5. If the dado is to be cut more than 6" from the ends of the stock, clamp a straight piece of stock $\frac{1}{2}$ " thick, to the face of the surface and parallel to the dado to be cut.

6. Clamp the stock so that the edges of the bit will line up with edges of the dado when the router base rests against the stock used as a guide.

7. When cutting through dados, it is sometimes best to tack a scrap piece of stock to the edges of the stock being dadoed. This will prevent the bit from splintering the edges of the stock.

8. Start the router motor and, with straight guide held firmly against the end of edge of the stock, move the router from left to right across the stock.

9. The speed of the feed depends on the hardness of the wood and the size of the cut. Avoid crowding the feeding speed. This will prevent rough and burned surfaces.

10. If a piece of stock is to be used as a guide for the router, the router base must be held firmly against this stock while the cut is being made.

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The Trade Practices Act 1974 came into force on October 1, 1974. Certain provisions of the Act relating to consumer protection place a heavy burden upon advertisers, advertising agents and publishers of advertisements.

Section 52 of the Act imposes a general duty on everyone (individual and corporation alike) not to engage, in trade or commerce, in conduct that is "misleading or deceptive."

In addition Section 53 (read with Sections 6 (3) (c) and 79) makes it a criminal offence (punishable in the case of an individual by a fine of \$10,000 or 6 months' imprisonment and in the case of a corporation by a fine of \$50,000) for an individual or corporation to do any of the following in trade or commerce in connection with the supply or possible supply of goods or services

or in connection with the promotion by any means (for example advertising) of the supply or use of goods or services, namely:—

- (a) falsely represent that goods or services are of a particular standard, quality or grade, or that goods are of a particular style or model;
- (b) falsely represent that goods are new;
- (c) represent that goods or services have sponsorship, approval, performance characteristics, accessories, uses or benefits they do not have;

- (d) represent that the individual or corporation has a sponsorship, approval or affiliation (he, she or) it does not have;
- (e) make false or misleading statements concerning the existence of, or amounts of, price reductions;
- (f) make false or misleading statements concerning the need for any goods, services, replacements or repairs; or
- (g) make false or misleading statements concerning the existence or effect of any warranty or guarantee."

Apart from the criminal sanction for

a breach of Section 53, an individual or corporation infringing Section 52 or 53 is liable to proceedings for injunction and for damages suffered by an injured party.

In view of the obvious impossibility of our ensuring that advertisements submitted for publication comply with the Act, advertisers and advertising agents will appreciate the absolute need themselves to ensure that the provisions of the Act, including the sections specified above, are complied with strictly.

It is suggested that in cases of doubt advertisers and advertising agents seek legal advice.

Pioneer Publications Pty. Ltd.

HOW TO LAY COBBLESTONE PAVERS

When planning a new house most people draw up a list of priorities, things to be done to the house and its surroundings.

Near the top of most lists is the problem of footpaths and driveways that allow you to move comfortably in and out of the house.

The normally accepted product without thinking too much about it is generally concrete and although this is still an excellent serviceable material, more aesthetically acceptable materials are being sought as alternatives.

Monier Brick have introduced a do-it-yourself paving brick called "Cobblestone". Available in Charcoal this concrete masonry paver measures 240mm x 190mm x 86mm (9½" x 7½" x 7¼") and has been rumbled subsequent to manufacture.

The popularity of the old bluestone pitchers or granite setts of yesteryear which are expensive and difficult to acquire—was one of the reasons Monier set out to produce a low cost cobblestone type product.

Apart from being about half the price at 32 cents each—the Monier paver is much lighter in weight—7.6 kilos (each).

First step in laying pavers is to excavate area to be paved to a depth of approximately 90mm for pavers or 125mm for cobblestone pavers.

Then prepare base of approximately 50mm of compacted packing sand and level to required grade to allow for drainage. Place pavers hard against each other in selected pattern.



Spread fine dry sand over pavers, brush into joints and sweep off excess.

Tap the paver down with a rubber hammer ensuring snug fit to minimise movement.

The Cobblestone can be seen and

information obtained from the Building Development Display Centre, 332 Albert Street, East Melbourne. The Centre is open seven days a week Monday to Friday 9am to 5pm, Saturday 9am to 12 noon and Sunday 2pm to 5pm.

GODMAN IN THE GARDEN



Garden Work in August

by Charles Godman

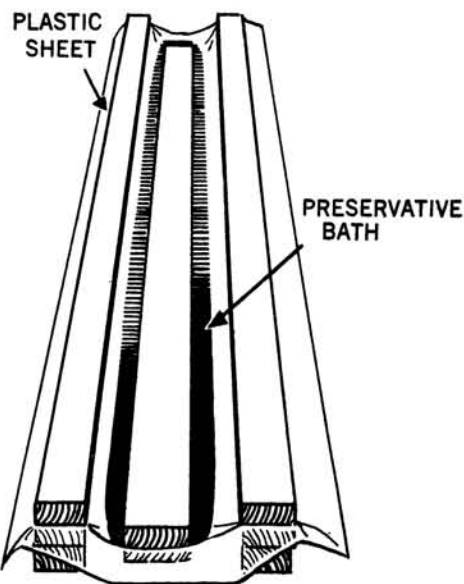
In spite of the cold weather, the weeds seem to grow just the same. There's no easy way of keeping them down, but you can make it easier for yourself by using a mulch of bark chips or sawdust all over the ground. You will have to remove the weeds before spreading the mulch, so you have a clean start. Loosen the surface of the ground, then spread the mulch about 2" thick all over. This will not only choke weed seedlings as they germinate, but also retain moisture in the ground during dry spells. The colour of the bark chips or sawdust sets off the plants and shrubs, and makes the borders look very attractive. Weeds in driveways and gravel paths are another nightmare. The use of total weedkillers this time of year



is not so effective, as often they get washed out by heavy rains before doing their job, often to the detriment of adjacent lawn edges or shrubs. A contact weedkiller would be more appropriate this time of year, as it burns off the top growth, but is neutralised by contact with soil, so cannot do harm to adjacent plants. A dry sunny day is the best weather for applying contact weedkiller.

Have you finished pruning the fruit trees? Don't neglect to spray them with white oil or a dormant oil. This will save so much trouble from pests and diseases later on in the season; it's always worth doing and must be done before bud burst. Newly planted trees will require the same treatment. Start as you mean to go on, and keep them clean. Bordeaux mixture should be sprayed onto Peach, Nectarine and Almonds, just before bud burst to prevent leaf curl, a fungus disease which distorts the foliage, and leaves blemishes on the fruit. New trees will want staking until established. A good strong post is best, the full height of the main trunk. Make sure when tying the new tree to the post, you give it

room to expand as it grows. You often see poor trees strangled by their ties cutting into the bark. I've used nylon stockings or tights as ties, and very effective they are, as they stretch with the trees, and take a long time to rot. There are special straps, in plastic, rubber or fibre that can be bought for the job. These are adjustable to the size of the tree as it grows. Another good material you can utilise is old tyre inner tubes. Cut into strips 1-2" wide; they make excellent ties.

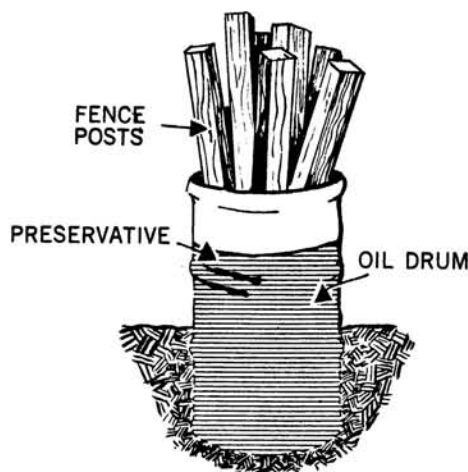


While talking about posts and stakes, old sump oil is a good preservative for the bottoms. Dip or stand the posts or stakes in the oil for a few minutes then drain. Your garden canes can be dipped in the same manner.



Sump oil is as good as creosote, and far less harmful to the plants or roots. I also use sump oil for fences and gates; it gives weathered boards a lovely dark colour, and soaks in easily.

Continue planting shrubs and trees, and split up any border plants that have grown too big. The spring bulbs are now beginning to show signs of life, so keep a few slug pellets around the base of the stems to avoid unsightly damage to your flowers.



Making a New Garden From Scratch

A lot of people, when faced with a plot of land bare except for perhaps a tree or two in one corner, just as the builders have left it, wonder how they are going to tackle such a formidable task.

I am going to try, with a series of articles, to make the job a little easier for you, with tips and suggestions.

The first thing to be done is to draw a plan of the site. It doesn't need to be an elaborate affair, the essential thing is to get the correct measurements of the boundaries to a reasonable scale on the drawing. I've found that 1" to 10 ft. is almost right for the scale. So that a plot 50 ft. by 150 ft., would break down to 5" by 15". Mount your plan on stiff card or cardboard to preserve it. Mark in your boundary lines and any existing features on the site that will be left in position. Also the house, of course, this must be accurately positioned on the plan. Use pencil to mark the plan until you have everything right, then ink it in for permanence.

Now we come to the point where your ideas are put on the plan. Driveways and paths are the first consideration. These generally are major

features that govern where everything else will go. Try and visualise the finished garden as you want it. Make a rough sketch, before adding to the master plan. Pencil in the ideas as decided as accurately as possible, with the measurements. Unless you are set on a formal garden, try and make the features as natural as possible. Avoid straight edges to flower borders and shrubberies. Even driveway margins and pathway edges can be made to look right in the scene by putting a curve in here and there. If you have a flat site, you will have to create height to give it more interest. A shrub border or rockery will often do the trick. If you are contemplating a pond, the soil dug out from this can be used to heighten the ground elsewhere. Be bold with any feature you make.

Drainage is another problem on a flat site water may lay after heavy rain and this will spoil the best of efforts. A clay soil will be more prone to this. If there is a risk of bad drainage provision must be made to lay pipes and provide a soak away at the lowest point of the site. This could be a good spot for a pond or marsh garden. We must not forget the necessities of life, the clothes hoist and the compost heap. The clothes hoist will

need a sunny, airy position, convenient to the laundry. Don't forget you can use them for two purposes; with a cover over the top you have a beautiful sunshade. So if you are contemplating an area for sunbathing and barbecues, this could be an ideal spot to put the hoist. The compost heap is a different matter. It is better tucked away in a back corner of the garden, well away from the house.

It can be made decorative or at least hidden from view by planting shrubs or fruit trees, trained espalier fashion, on wires and posts.

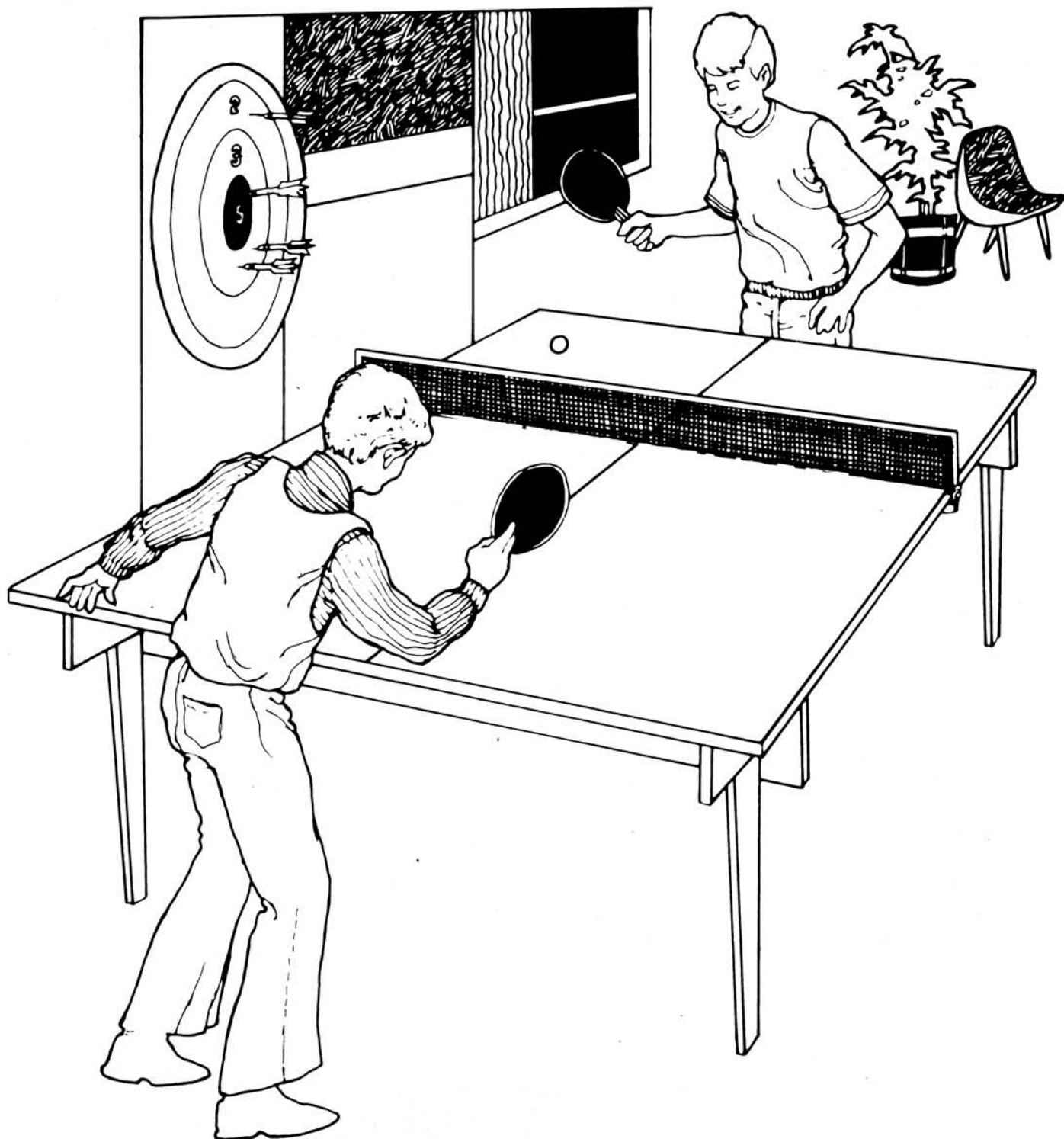
A luxury item that we might consider here is a swimming pool. It's a must for some people, and adds value to the property. Even if you are not contemplating one straight away, leave provision for siting one, or draw one in for further development later.

Your plan should now be taking shape and some ideas forming as to what materials will be required. This I shall discuss in the next issue, methods of construction and helpful tips of how to go about getting started.

Good luck from Charles Godman.

build this

UTILITY TABLE



This practical 5' x 9' utility table can be put to use in the family room, and even amateurs will find construction easy using only ordinary hand tools.

Simple lock joints, hold the base frame rigid without fastenings. The table may be readily taken apart and stored flat until needed again.

1. The top which will fit alternate or timber frame can be made from one panel cut in half to 5' x 4'6" with a piano hinge at the centre. Drawings show this hinge detail. A hinged top, of course, will require less storage space.

2. INTERLOCKING BASE FRAME

(a) Allowing for saw cuts, carefully mark out the frame pieces to dimensions on a panel as shown in the cutting diagram. Local timber dealers often have panels that can be used for these required parts. Pyneboard or plywood can be used.

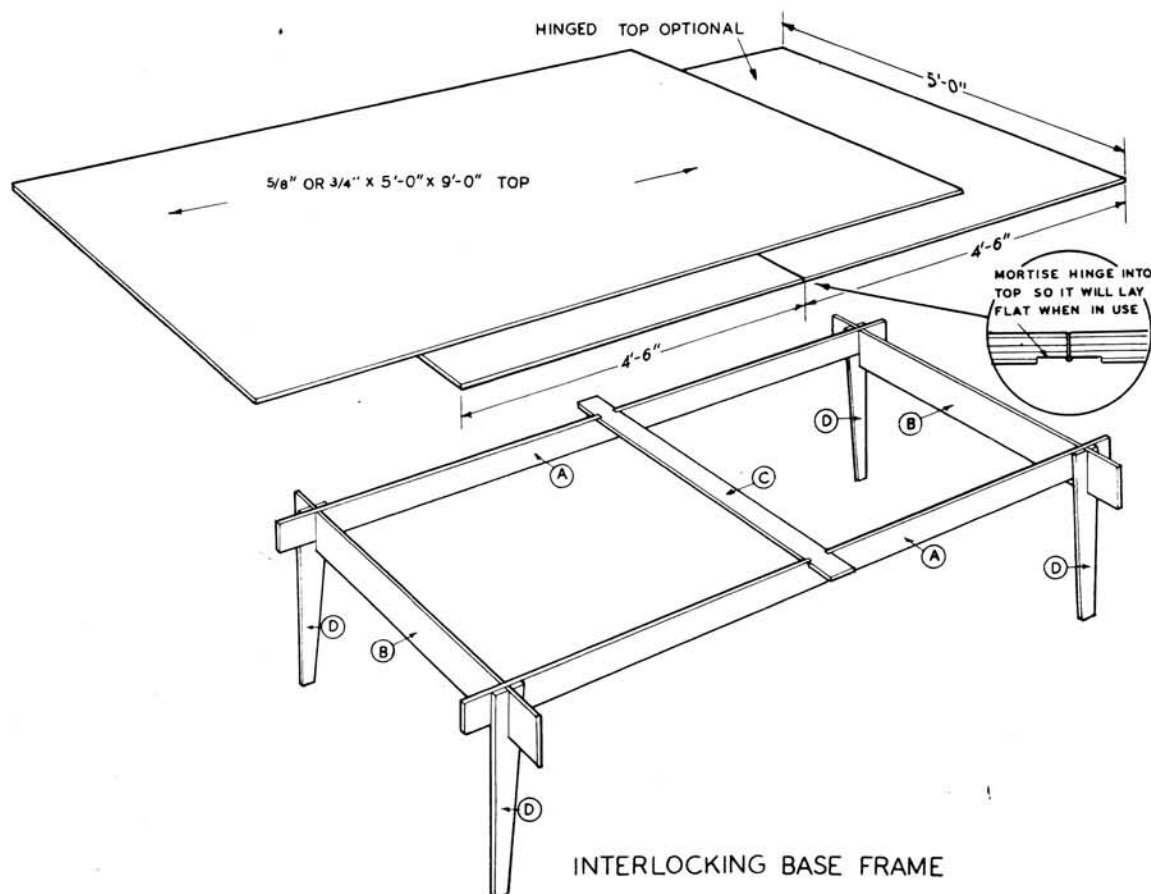
(b) Now cut pieces to size with a sharp hand saw or power saw if available. To gain rigidity after assembly, the notches in each piece must be accurate.

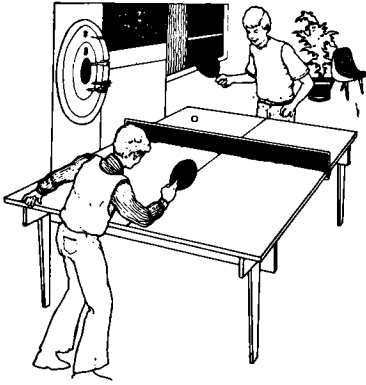
These can easily be made by drilling a hole at the bottom line and sawing each edge of the hole. Trim

What you will need

Code	No. Req'd	Size	Part Identification
Alternate Base Frame			
	1	60" x 108"	Table Top
	2	54" x 60"	Hinged Table Top (optional)
1	2	2" x 2" x 91½"	Side Frame
2	2	2" x 2" x 46½"	End Frame
3	1	2" x 4" x 46½"	Mid-Stringer
4	4	2" x 2" x 28"	Folding Legs
5	2	1" x 4" x 96"	Side Rail
6	2	1" x 4" x 46½"	End Rail
	4 ea.	⅝" x 13½"	Table Leg Braces
	4 ea.	1½" x 3½"	Steel Hinges
Interlocking Base Frame			
	1	60" x 108"	Table Top
	2	54" x 60"	Hinged Table Top (optional)
A	2	4½" x 96"	Side Rail
B	2	7½" x 53⅞"	End Rail
C	1	3⅝" x 59¼"	Mid-Stringer
D	4	4" x 29¼"	Legs

Miscellaneous: Piano hinge (for top if hinged), finishing materials, nails and glue.





the corners with a chisel. Sand all edges in preparation for finishing.

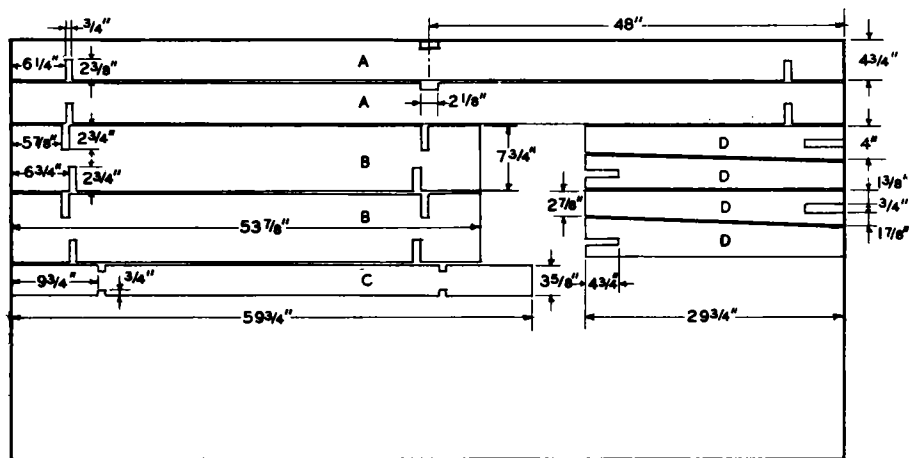
3. ALTERNATE TIMBER BASE FRAME

(a) Using the parts schedule as a guide, measure and cut framing members, legs and rails to proper length. Note how mid-stringer is notched into

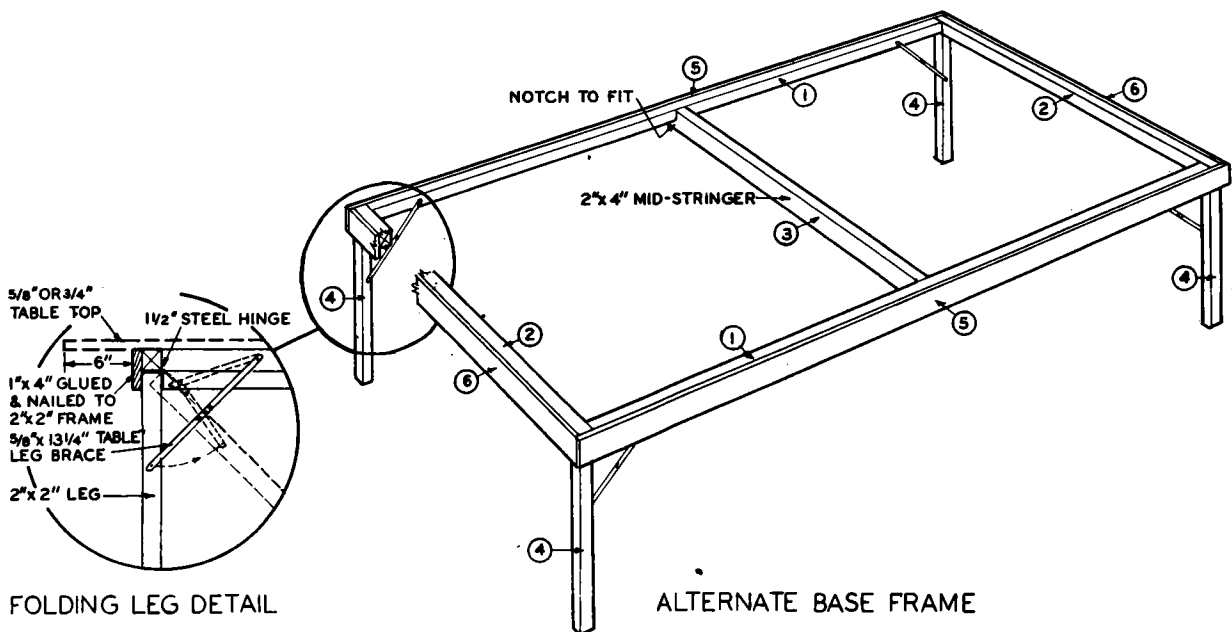
2" x 2" frames.

(b) Assemble framing members as shown with nails, and glue. Fasten 1" x 4" rails to framing, using nails and glue.

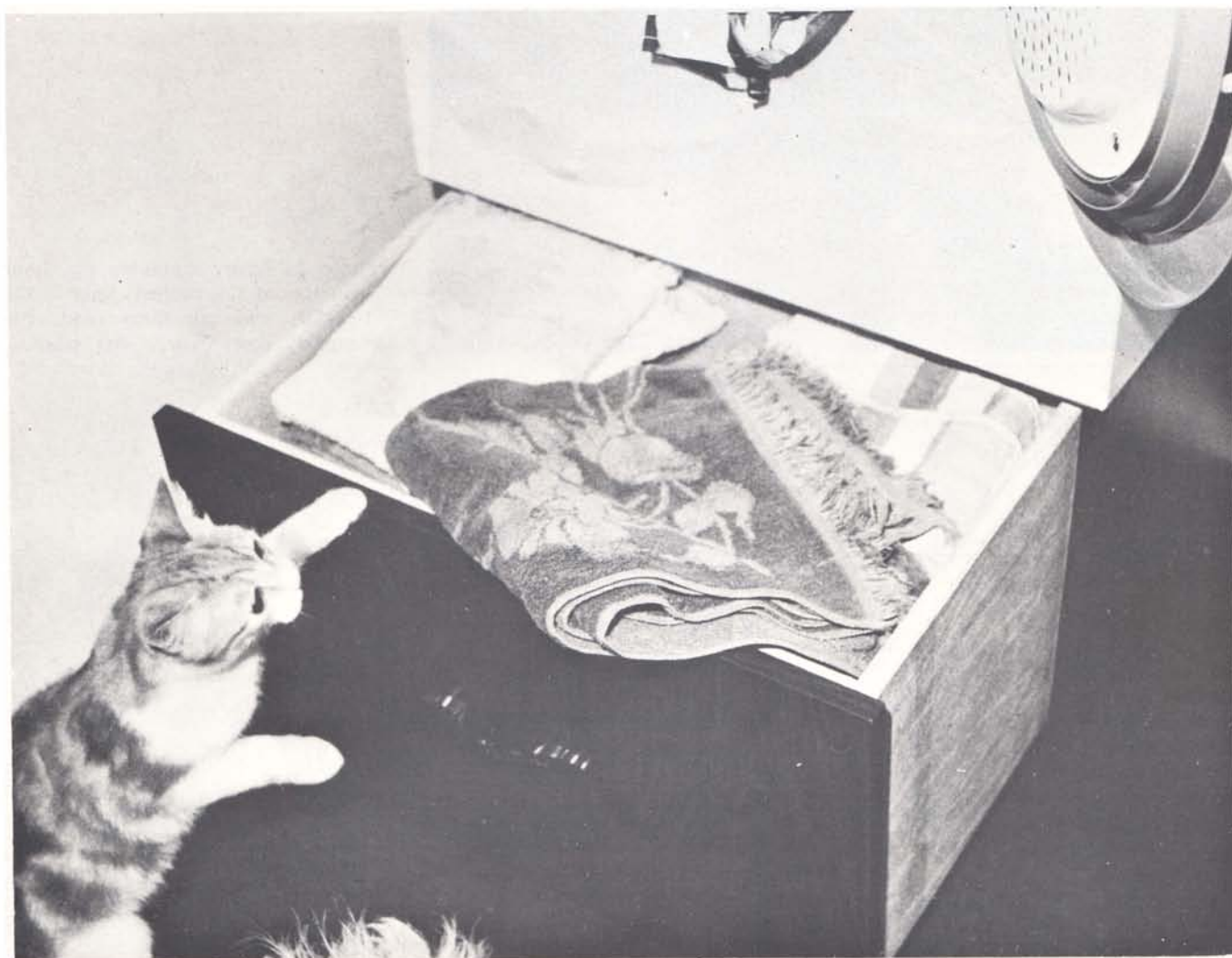
(c) The detail shows how folding legs are installed using steel hinges and table leg braces.



CUTTING DIAGRAM FOR INTERLOCKING BASE FRAME



a clothes cabinet for your tumble dryer...



Most tumble dryers manufactured in Australia are either floor or wall mounted and are adaptable to almost any situation.

Tumble dryers like the Hoover, General Electric (A.G.E.), and Simpson etc., which are in the smaller capacity class, probably represent the most valuable addition to the household laundry in recent years.

If you own one of these units, you are already experiencing the efficiency benefits they provide. But why not

make them even more efficient by elevating them on a cabinet which provides extra storage for soiled clothing, laundry or cleaning supplies, bedding or bulky items.

There's no need for us to go into exact detail regarding construction except to say that it can be constructed from plywood or pyneboard using the most basic tools.

A hand router would probably speed up the construction.

The dimensions shown in the draw-

ing are for the small Hoover tumble dryer that is currently available in electrical retail stores at the time of publication. Before marking out your job or cutting stock, check the measurements of your own dryer at the base, and use these measurements to set out your job.

Photo 1: A close-up look at the tumble dryer cabinet showing the extra storage space gained in a laundry for towels etc.

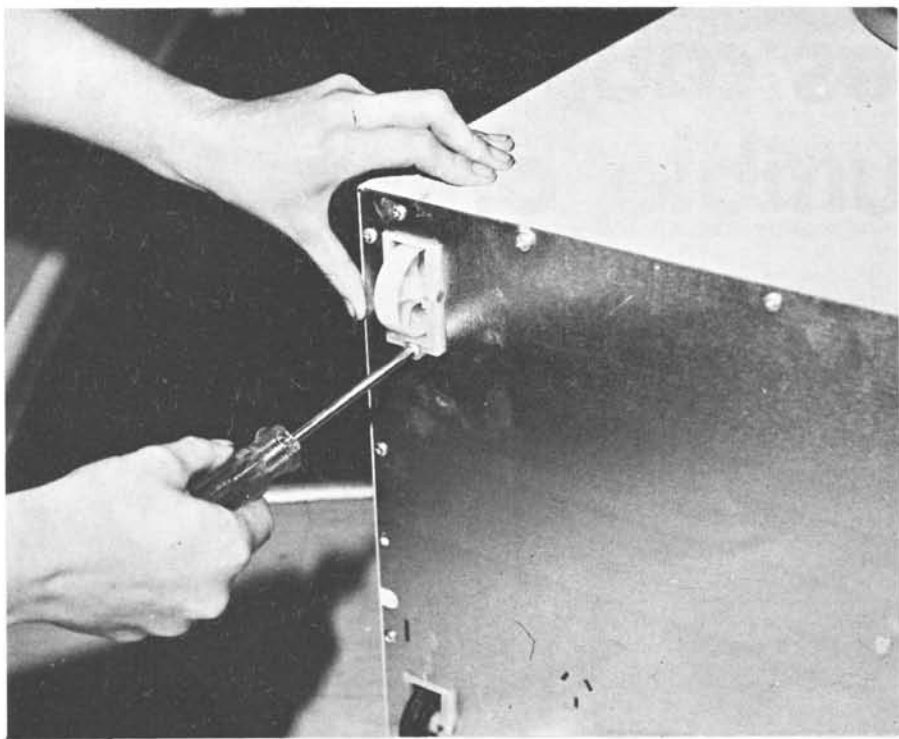
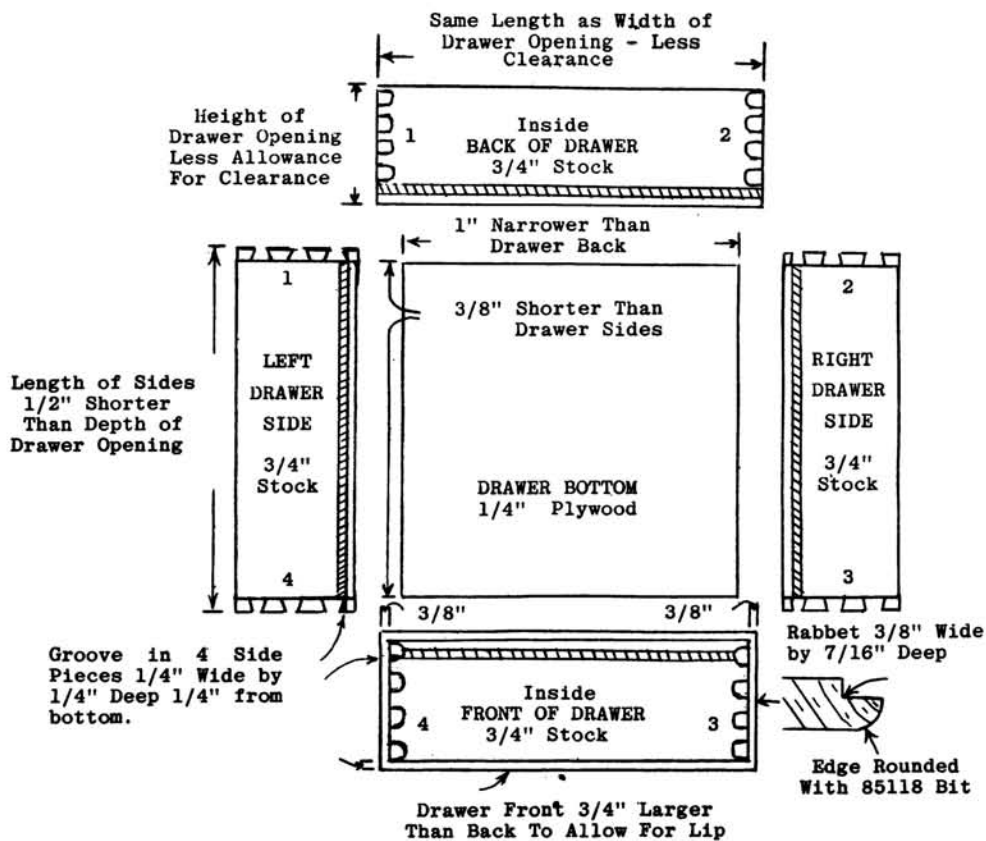


Photo 2: Before mounting the dryer on top of the cabinet, remove the castors and put them (and self-tapping screws) in a safe place.



If 1/2" stock is used for sides and back,
make drawer bottom 1/2" narrower than back.

INSIDE INFORMATION ON YOUR CAR

How petrol is drawn from tank to carburettor

Most modern cars have their petrol tanks located at the rear, and at a level lower than the carburettor. Since the carburettor is usually mounted high up on the engine, a pump is required to "lift" the petrol from the tank at the rear, up to the carburettor float chamber,

There are two types of pump in use today: the electrical type and the mechanical type. The electrical type begins to operate immediately the ignition switch is switched on—and, if for any reason the float chamber is empty, the pump may be heard clicking as it fills the chamber.

The mechanical type is operated by a cam on the camshaft and pumps only when the engine is running. This type often has a priming lever to pump petrol to the carburettor manually during maintenance work, thus avoiding the physical effort or battery drain involved in cranking the engine to allow the pump to fill the float chamber.

In either case the petrol is drawn from the tank, by the pump, and is forced under pressure through a filter or filter bowl and on to the carburettor float chamber.

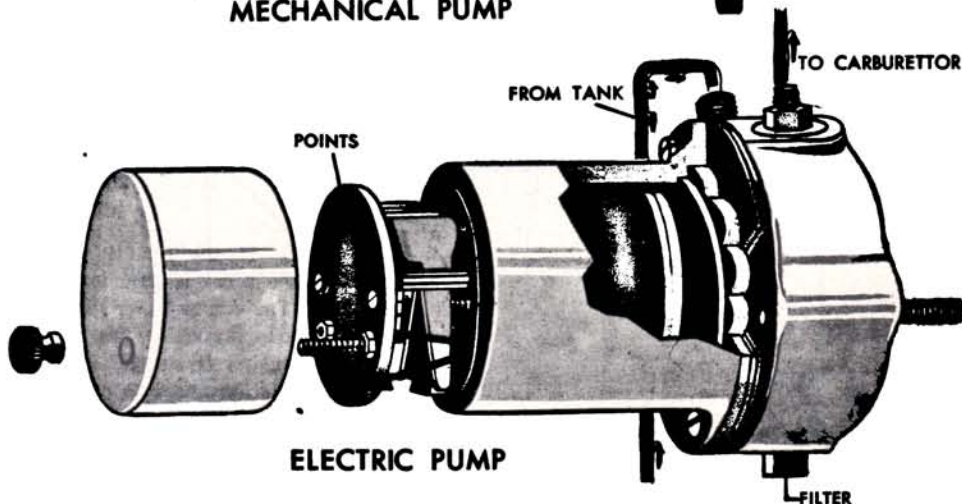
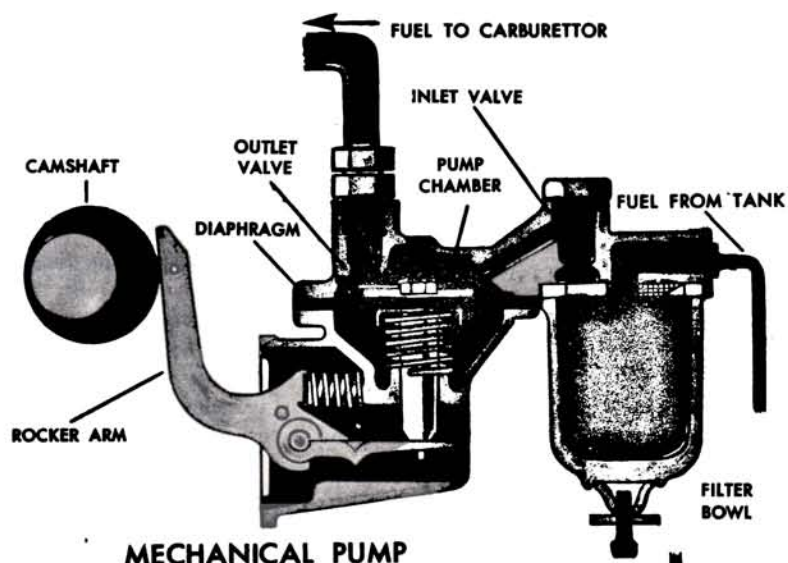
The quantity of fuel admitted to the float chamber is controlled by a float and valve arrangement not unlike that used in a water tank or cistern. This device ensures that the correct amount of fuel is present at all times to prevent fuel starvation or flooding.

Common carburettor troubles

Water and foreign material such as road dirt and dust can soon block carburettor jets. It is for this reason that filters are fitted in the fuel system. Water may find its way into the fuel even if none is present when the

petrol is bought. This is caused by the condensation of the moisture in the air which enters the tank as the petrol is being used. The tank is vented to the atmosphere to allow the air to enter, otherwise the petrol would not flow. The condensation occurs on the sides and top of the petrol tank as the outside temperature of the tank cools. It is because of this fact that the tank should always be kept full, particularly when a car is idle.

One of the most baffling causes of engine stoppage is petrol starvation due to "vapour lock". Petrol in the float chamber or in the fuel lines evaporates and does not arrive at the jet in the liquid form necessary for carburetion. This is brought about by high temperatures under the bonnet or a fuel line being too close to some hot component such as the exhaust manifold, or a combination of both. It will correct itself if the engine is allowed to cool, but a cure may often



be effected by bending the petrol lines away from the engine. "Vapour lock" usually occurs when a car is stationary after a run in hot weather. The heat usually swept away from the engine is then radiated to the fuel system. Cooling the engine by parking so that a breeze will pass through the radiator, or in the shade, will often eliminate the trouble.

Another common trouble is when the pipe connecting the fuel tank to the fuel pump is leaking. Air enters the line and prevents petrol being pumped and the engine from starting.



Use of the choke

A choke is fitted to the carburettor of a motor car engine to furnish the cylinders with extra petrol for starting purposes.

Therefore, when the choke is used, a much larger quantity of fuel than is needed for normal running is drawn into the cylinders and inevitably some of the heavier or less volatile portions will pass into the cylinders in relatively large drops.

Drops of liquid petrol will cling to the oil on the cylinder walls and ultimately be mixed with the oil by the action of the pistons. As shown in the illustration, the mixture of oil and petrol finally will reach the crankcase to dilute the crankcase oil. Consequently, excessive use of the choke is a costly habit. It not only wastes petrol but also promotes wear of the engine by thinning out the lubricating oil.

The problem of dilution is particularly troublesome when a car is used intermittently for short runs. The engine never gets properly hot and the choke invariably has to be used each time the engine is started. Under these conditions oil dilution and cylinder wear will be at a maximum.

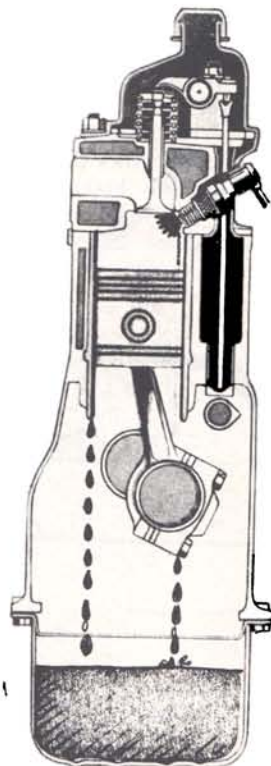
It is good for such an engine to be operated under full load occasionally. This will tend to reduce crankcase dilution as it will evaporate some of the petrol which has diluted the crankcase oil.



At the other extreme a vehicle which seldom gets cold, such as a car operating as a taxi, may be run for 16 or even 24 hours a day, and record a very much larger mileage with no appreciable wear, largely because the choke is seldom used and oil dilution is at a minimum. Also, since the oil is seldom cold, lubricating efficiency is at a maximum and the cold starting period, when wear is highest, is largely eliminated.

Automatic chokes

The carburettors of some modern cars are fitted with automatic chokes so that the amount of fuel drawn into the cylinders during the starting period is regulated in accordance with engine temperature. In this way the amount of petrol used during the starting period is reduced to a minimum.



How to unblock a sink

Although modern sinks and basins usually have grids over their waste outlets, small bits and pieces do get through and can eventually block the trap beneath. Don't take risks by emptying tea leaves and solid food wastes down the sink. If you must put hot fat down, make sure you follow it with equally hot water to stop it solidifying in the pipe.

And invest in a plunger — one of those rubber cups on a wooden handle. It could save you a hefty plumber's bill.

- When a blockage occurs, try clearing it with a plunger first. Start by blocking the overflow hole with rag so that water and air do not escape when you apply the plunger. Bale out nearly all the water, leaving a depth of about 1 inch.

- Place the plunger's cup firmly over outlet and work handle up and down vigorously. When blockage is cleared, the water will run out quickly. Remove rag from the overflow and run fresh water down drain for a minute or so.

- If the plunger fails, try the trap. Most sinks have a screw plug at the lowest point of the U-section. Unscrew this and try cleaning with flexible wire worked through from outlet end. When wire reaches trap, work it round from below and free obstruction. Replace screw plug and run water thorough sink.

- Some sinks do not have a screw plug, but a U-section that can be removed by loosening off lock nuts joining the trap to the sink waste and the outlet pipe. The section can easily be taken out and cleaned. Important note: don't unscrew plugs or U-sections beneath blocked sinks without first placing a basin or bucket to catch the water that will drain out when you start work.

Petrol and economy



Economy trial drivers have developed a driving technique that returns the greatest economy for all makes of motor cars. The basis of this technique is good anticipation or "look ahead driving".

Good anticipation means driving through and ahead of the car in front of you, watching for stop signals, cross traffic, pedestrians, etc. When you drive in this manner you have time to avoid sudden stops, or having to move quickly to keep out of trouble.

The Economy trial driver tries to make his car flow along the highway with the minimum of throttle movement. He considers the dunce of the highway to be the driver who speeds up one minute, slows down the next, jamming on his brakes or leaping ahead, all of which makes him a prime annoyance to other motorists and the greater user of petrol.

These points could help you drive with economy.

1. **Your Spark Timing.** An over-retarded spark robs you of power and mileage—causes engine to over-heat.

2. **Your Carburettor.** Adjust mixture and idling speed. An over-rich mixture and a fast idling engine waste petrol.

3. **Watch Your Plugs.** Faulty plugs, dirty plugs, old plugs all contribute towards petrol waste. Manufacturers recommend they be changed every 16,000 kilometres (10,000 miles).

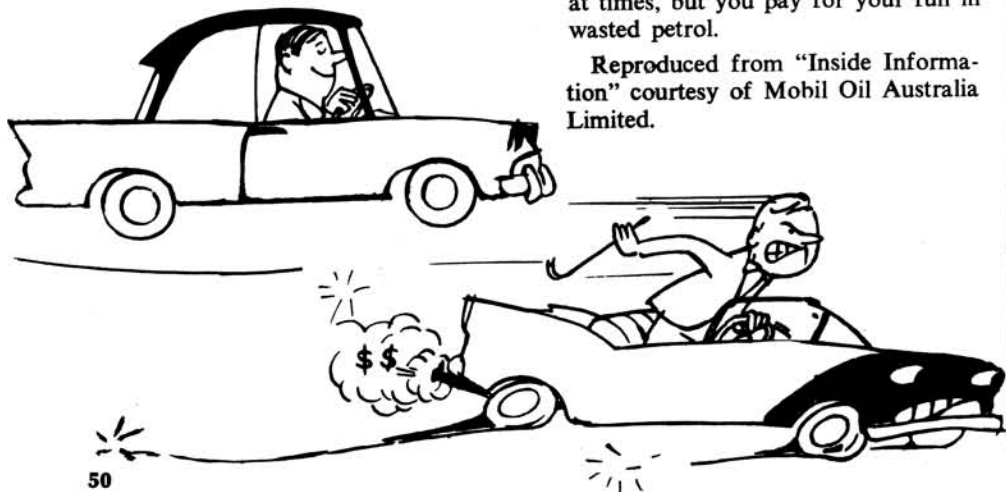
4. **The Choke:** It's there to be used — not abused. Once you've started your engine, push it right in and you'll save petrol.

5. **Your Accelerator.** Cultivate a light foot and maintain your car at a regular speed. Bursts of speed, revving the engine, and excessive speed are all consumers of petrol. Once you've attained your desired speed, ease up with your accelerator — use just enough pressure to maintain speed. This saves petrol.

6. **And Your Tyres.** Maintain them at proper pressure as recommended. An under-inflated tyre wears quicker — takes more fuel to turn the wheels.

7. **Watch Your Speed.** Remember, you use almost twice as much petrol at 100 km/h as you would use at 60 km/h. Quick get-aways can be fun at times, but you pay for your fun in wasted petrol.

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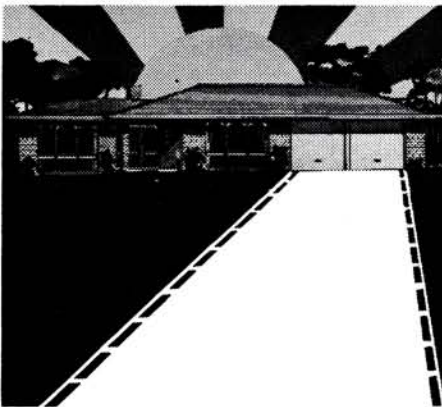
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HOW TO LAY CONCRETE

Part 2 - The Driveway, Patio & Garage floor.



THE DRIVEWAY.

Good news. It's exactly the same as laying the pathway.

Thickness is decided by how good the drainage is and what load the drive will have to carry.

100mm (4") is about the minimum thickness on a good site with good drainage and low loads. Use 90mm x 38mm boxing.

For poor drainage increase the concrete depth to 125mm (5") on a base of 100mm of crushed rock or packing sand. Use bricks to support the boxing underneath.

For heavy loadings, increase the concrete thickness on the normal soil to 125mm (5"). Use bricks for boxing support.

Otherwise just follow the instructions for the path, but use 100mm x 38mm (4" x 1½") timber for your screed board. The board should be 400mm (15") longer than the maximum width of the drive.

CURVES.

Use hardboard. Cut it into a strip the same depth as the boxing and bend it carefully around pegs placed on the correct line.

To find the correct line, stick a peg in

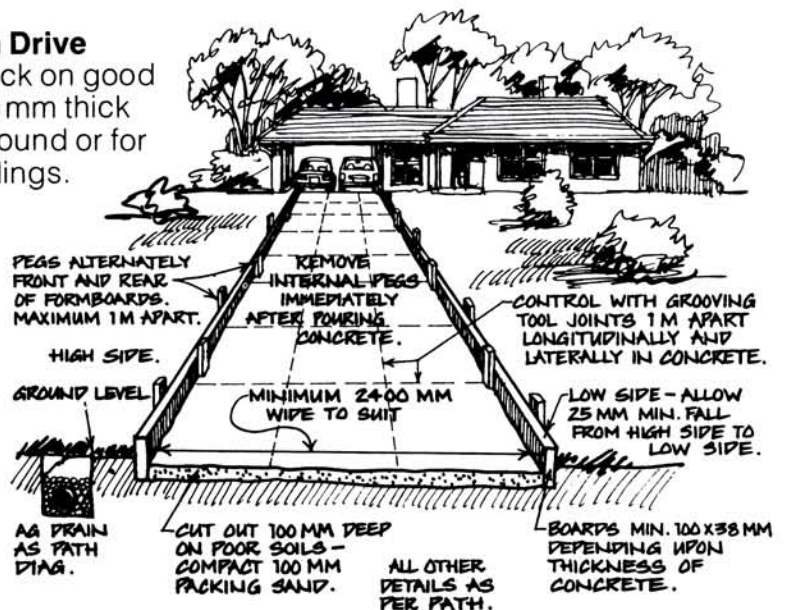
the ground at the point where the two inside angles of the path would meet if they continued in straight lines. Tie a string to the peg and use it as a compass to make the outside curve.

To find the inside curve, put a peg at the point where the outside edges would intersect. Tie string to this peg and run it across the inside peg, continuing the line for a distance equal to the width of the path. Use this point as the centre of your compass and draw the curve that joins the two inside edges.

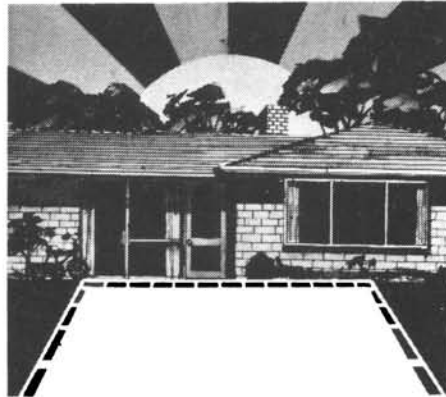
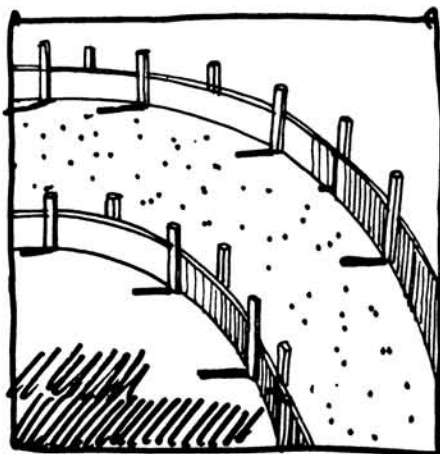
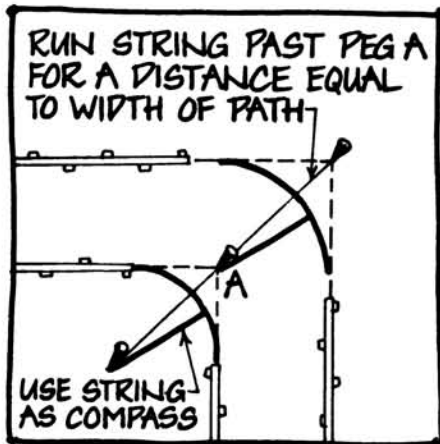
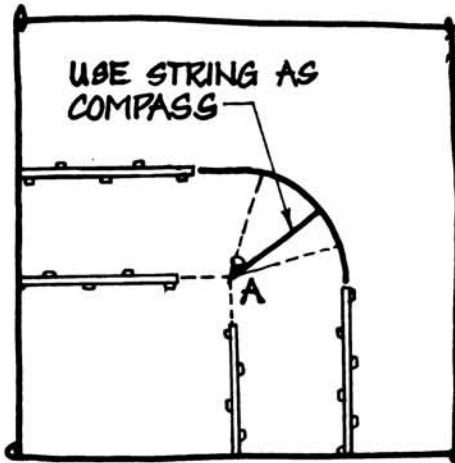
If the curve is too sharp you may have

Full Width Drive

100mm thick on good soil — 125mm thick on poor ground or for heavy loadings.



problems with bending the hard-board. If it won't curve without breaking pour boiling water over it until it bends easily to the curve. Peg firmly inside and out. Remove inside pegs when concrete is poured and tamped.



THE PATIO.

The patio base should be well compacted clean fill which has had time to settle. Alternatively, use crushed rock, well compacted.

Normally the easiest way to get the shape of the patio is to brick the area in.

Or you can do it by pouring concrete walls and then pouring the floor slab, but this is a longer job in certain respects.

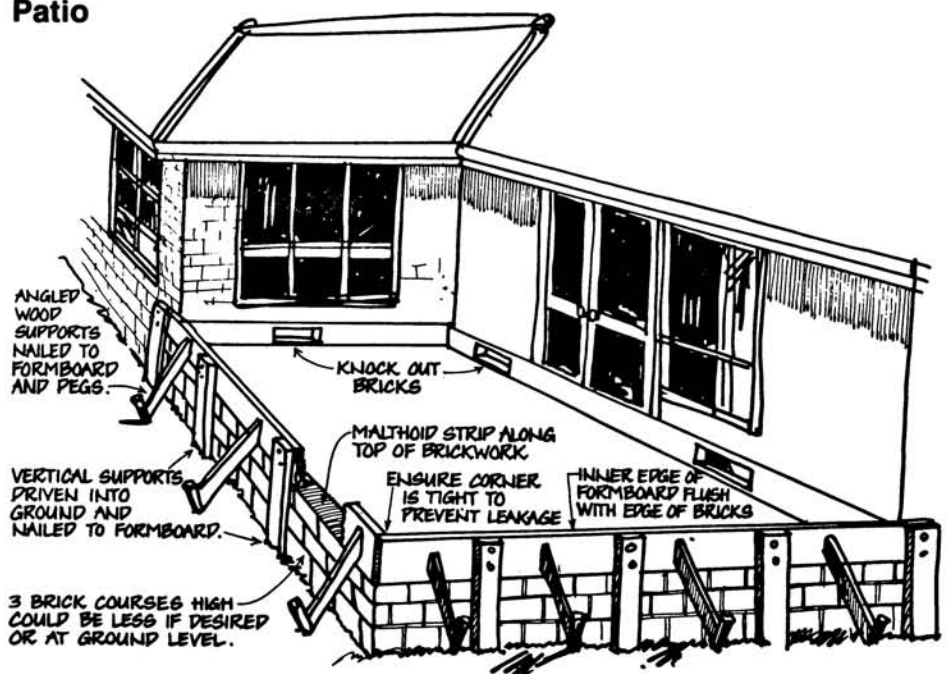
This plan can be used for a patio which will eventually have a decorative surface of tiles which will be laid on top of the concrete.

Alternatively, the poured concrete can be the whole patio. In which case

the formboards should stand the height above the bricks which is to be the final thickness of concrete. Pour the concrete so it stands 12mm ($\frac{1}{2}$ ") above the formwork and tamp and screed to the correct level. On special order, we can supply coloured concrete. Call us and enquire as to availability and price.

1. Lay the formwork around the bricks so the inner edge of the formboard is flush with the edge of the bricks. Formboards 50mm (2") wider than the depth of concrete to be poured. Allow for drainage slope away from the house.
2. To avoid staining the bricks, lay a strip of builders' polythene under Malthoid around the whole perimeter as shown in the drawing.
3. Carefully knock out a few bricks at several points where the poured slab butts against house walls. See the illustration. This keys the patio into the house structure and strengthens the patio.
4. Measure and calculate the amount of concrete you will require and arrange delivery.
5. Pour concrete and tamp down well.
6. Wash down all exposed brickwork immediately after pouring to remove splashes. Keep excess water away from the fresh concrete.
7. When the surface appears dry lay damp hessian or polythene over the new work and leave in place for 7 days. Keep the hessian moist.
8. Remove boxing.

Patio



Special Notes on Patios

- a) Formboards will need to be approximately 50 mm wider than depth of concrete to be poured.
- b) It is important to prevent concrete coming between the face of the board and the face of the brick it is butted against otherwise permanent staining may result. To prevent this a strip of polythene should be placed under Malthoid around full perimeter as shown before pouring.
- c) Wash down all exposed brickwork after pouring to remove splashes. Keep excess water away from fresh concrete, as it weakens it.
- d) To provide a key and support for the slab several bricks should be **carefully** removed at several points where the slab butts against the walls.
- e) A Malthoid strip the full width of the face of the bricks should be placed around the perimeter of the slab where it rests on brick courses — see sketch.
- f) The base should be well compacted clean fill which has had time to settle or alternatively crushed rock well compacted.

Try to make the garage floor slightly higher than the driveway outside and slope it toward the driveway for drainage.

Otherwise follow the instructions on the illustration.

Lay the concrete thick, 125 mm (5") is best. Garage floors sometimes take heavy local loadings such as when you use a jack to work on the car.

Allow 7 days curing time for concrete over 100mm thick.

10 metres.

2. Measure the width of the job, for example 1 metre.

3. Multiply the length by the width. This will give you the area — for example 10 metres x 1 metre = 10 square metres.

4. From the table below select the depth of concrete required according to the recommendations in the text. The figure in the column under the depth figure gives the quantity of concrete in cubic metres which is required to cover one square metre. Multiply the area in square metres obtained above by the figure from the table — this gives the quantity required. You will need to add a small additional amount to this to allow for wastage.

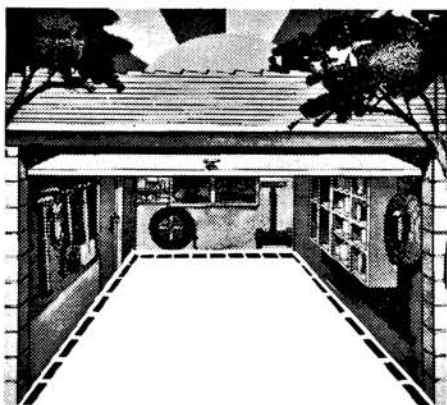
ORDERING THE CONCRETE.

Don't order concrete until all the formwork and site preparations are complete. This includes drainage provisions.

Calculating the amount of concrete you require like this:

1. Measure the length of the job, path, driveway etc., for example

Depth in mm	Quantity in cubic metres to cover one square metre
50	0.05
75	0.075
100	0.1
125	0.125
150	0.150
175	0.175
200	0.2

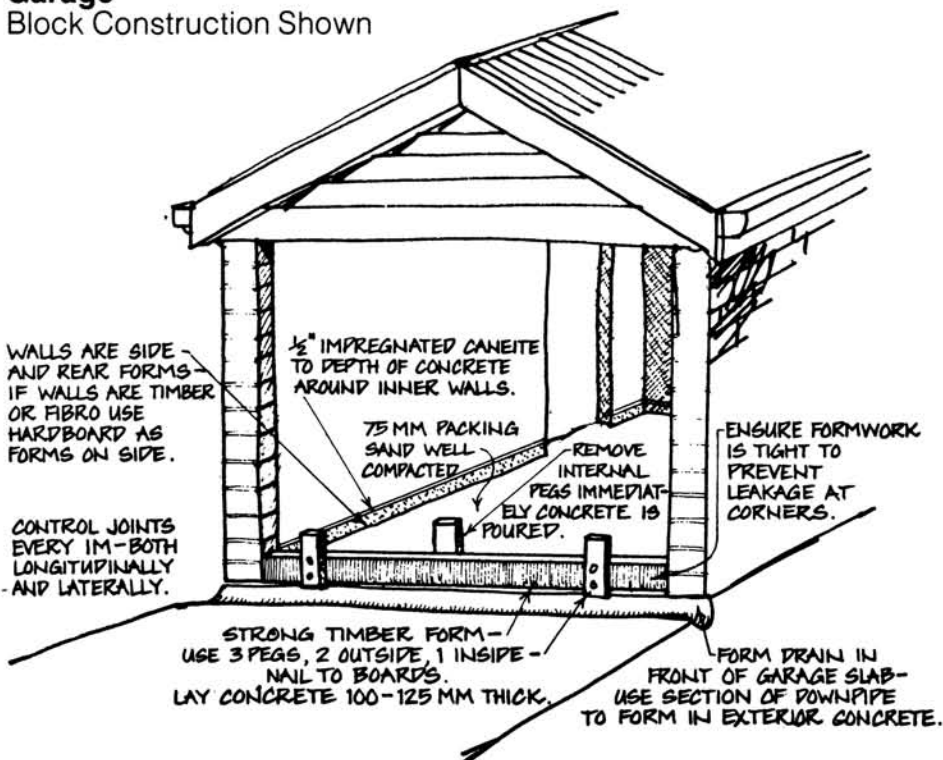


GARAGE FLOOR IN EXISTING GARAGE.

The same principles of laying out and formwork apply to garage floors as well as to drives and pathways.

The main difference lies in the greater number of control joints necessary. They should be at metre intervals both along and across the garage.

Garage Floor in Existing Garage Block Construction Shown



Changing Your Engine Oil at Home



The motor car offers considerable scope for the "do-it-yourself" enthusiast. While he may lack the skill necessary to undertake gearbox repairs, or engine overhauls, there are still many less complex but important

jobs he can do himself.

Plugs, points, fan-belt, radiator hoses, wheel bearings—these are just a few of the simple but essential prerequisites to efficient and economical motoring which can be handled without the need of a fully-equipped workshop.

But there is one job in this category which has, for fairly obvious reasons, been generally excluded from the normal DIY list of weekend jobs. Changing the oil is something which most owners have been happy to leave to the service station.

Regular oil changes have been recommended strongly by engine makers since the birth of the internal combustion engine. As engines have developed, so too have oils, to cope with almost infinite variables in size, power output, application, operating conditions.

Engine oil has four basic functions. Firstly, it must lubricate, providing and maintaining a slippery film between two surfaces and preventing metal-to-metal contact. Friction reduces efficiency.

Secondly, it must seal the minute gap between piston rings and cylinder wall, preventing compressed gases in the cylinder from leaking away. This "blow-by" causes loss of power, and contaminates the crankcase oil with unburnt and partly burnt fuel.

The oil also has the task of transferring heat away from pistons, big ends, main bearings and other moving parts, through to the metal block and the engine coolant. Circulating oil carries heat to the sump, where it is cooled by the airflow over the outside.

Fourthly, lubricating also has the function of keeping the engine clean, preventing the formation of harmful deposits and sludges which can block oil-ways and clog pump screens.

These sludges are formed by minute particles of carbon combining with road dust, water, unburnt fuel, grit and other contaminants in the crankcase.

Special detergent additives in the oil keep these particles enclosed by the thin film, which prevents them from coagulating with other particles and keeps them in harmless free suspension in the oil.

Other additives help the oil to resist oxidation, caused by the air as the oil churns and sprays inside the crankcase. Oxidation results in the formation of acids, lacquers and sludge—the acids are highly corrosive

and may attack the engine bearings.

Modern oils are formulated to maintain their performance over prolonged periods under a great variety of operating conditions. But even the best oils will not last forever.

Over miles of running, increasing contamination gradually exhausts the additives. The oil loses its detergent and neutralising effect, and is unable to cope with the ever-increasing deposits, sludges, acids, etc.

The oil becomes lifeless, black and gritty, no longer able to adequately do its job. Extended use of oil which has reached this state will give rise to all sorts of troubles.

For most passenger cars, operating under unfavourable stop-start conditions of city driving, regular oil changes at least every 90 days are essential.

Changing the oil is a simple enough job, and growing sales of "take-home" oil packs through non-service-station outlets indicate that more and more owners now balance the awkwardness and possible messiness against the cost savings.

Probably the major deterrent to the "do-it-yourself" has been that of disposal. What do you do with a tray full of used sump oil?

This problem is more acute now, with environmental authorities tending to look with disfavour on the smell and smoke created by burning it (so probably will the neighbours).

Hopefully, the few irresponsibles who might be tempted to consider quietly tipping it down the nearest drain will also be aware of the far-from light penalties applicable under the Environment Protection Act.

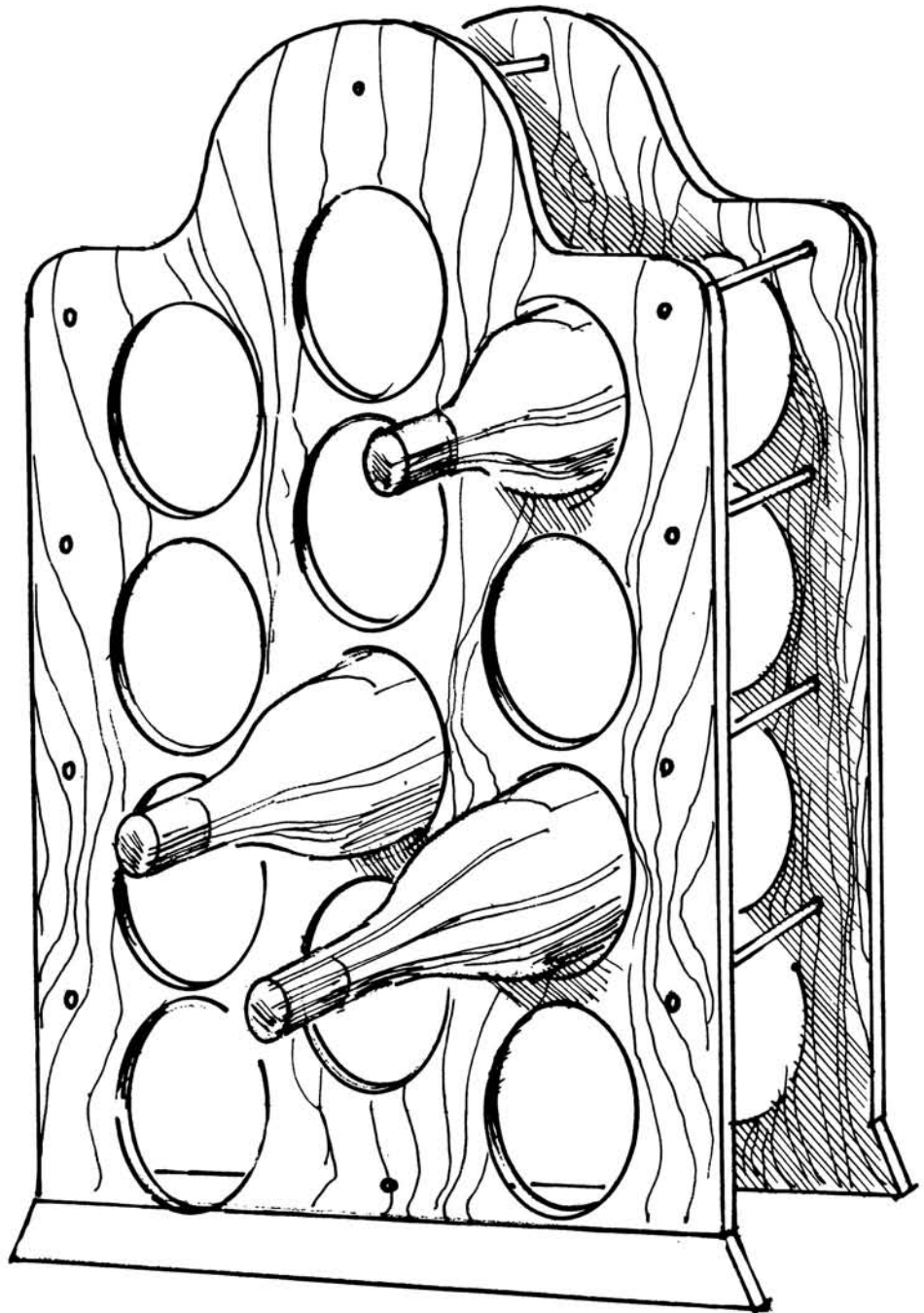
Many service-station dealers are prepared to empty your used oil into their own disposal system (on the understanding that you do the right thing and buy your new oil from them).

The increase in "do-it-yourself" oil changing is encouraging in the light of the current emphasis on efficient use of energy. Regular replacement of oil is essential to the efficient operation of an engine.

By merely increasing the intervals between trips to the service station for an oil change, the car-owner may save himself money in the short term. But the savings will be more than offset by the long-term effects of inefficient operation and resultant wear on the engine.

A WINE RACK

BY MAURICE SOUTHCOMBE



Mark out and cut the ply as shown in Fig. 1. Mark the centre line as shown by dotted line, then mark another line on each side 102mm apart.

Measure off the 50mm for the footing and from this line measure along the centre line 127mm and mark with a small cross. Make further crosses at 127mm intervals until four have been made.

On the two side lines measure 63.5mm from the footing line, then make a cross as before. The next three marks are 127mm apart.

Make two of these exactly alike. Next, using a pencil and compass, draw a 50mm radius circle using the crosses as a pivot (twelve in all), see Fig. 2.

Drill ten 3mm holes as shown by the dots in Fig. 2. Drill a 9mm hole near the edge of each circle (see Fig. 3). If you have a jigsaw attachment for your power drill, use this to saw out the holes as shown in Fig. 3. It may be necessary to smooth off the edges with a fine half-round wood rasp.

What you will need

Two pieces of 12mm thick ply 711mm x 381mm.
Ten pieces of 25mm dowelling 115mm long.
20 screws, chrome plated, countersunk, round head
50mm x 8gge.
20 chrome washers to fit above screws.
Two pieces timber 50mm x 25mm and 431mm long.
Aquadhere and a few panel pins.

Cut the 25mm dowelling into 115mm length making sure the ends are at 90 from the face. Drill a 2mm hole in the centre of each end.

Now cut the two 50mm x 25mm pieces as shown in Fig. 5. Glue them to the outside of the body pieces flush with the bottom and secure with panel pins from the inside.

Place a washer under the head of

each screw and screw through the body into the end of the spacer. Screw all ten spacers into position then turn work over and screw other body piece into place.

Sand all smooth and varnish. This will accommodate twelve normal size wine bottles.

Note: If no jigsaw is available use a keyhole saw to cut holes.

FIGURE No.1. Body of Rack. From 12mm ply

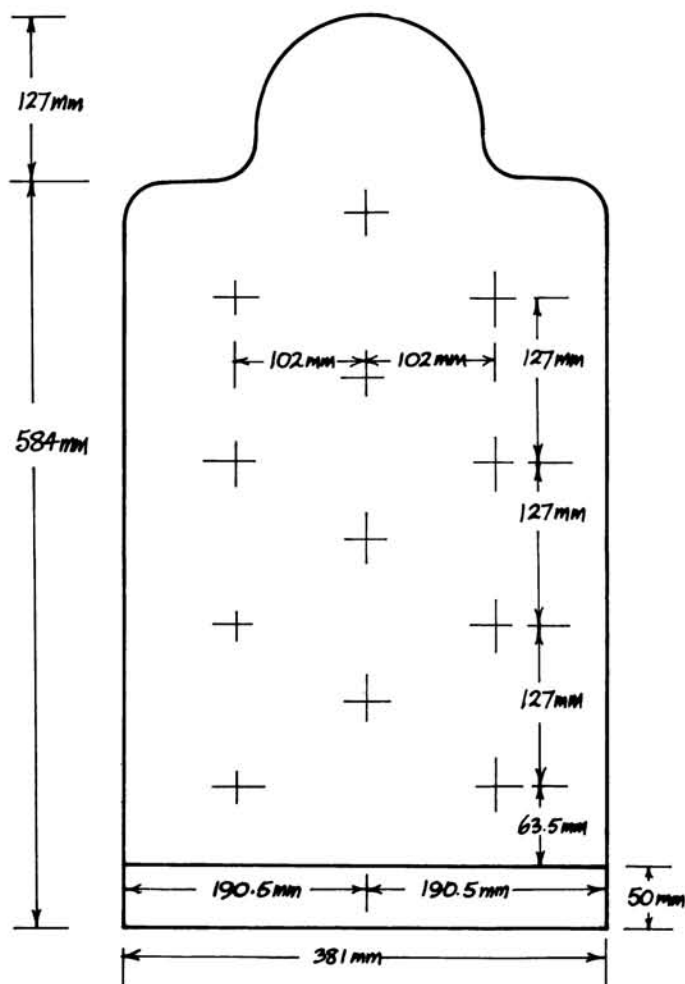


FIGURE No.2. Showing holes marked from crosses

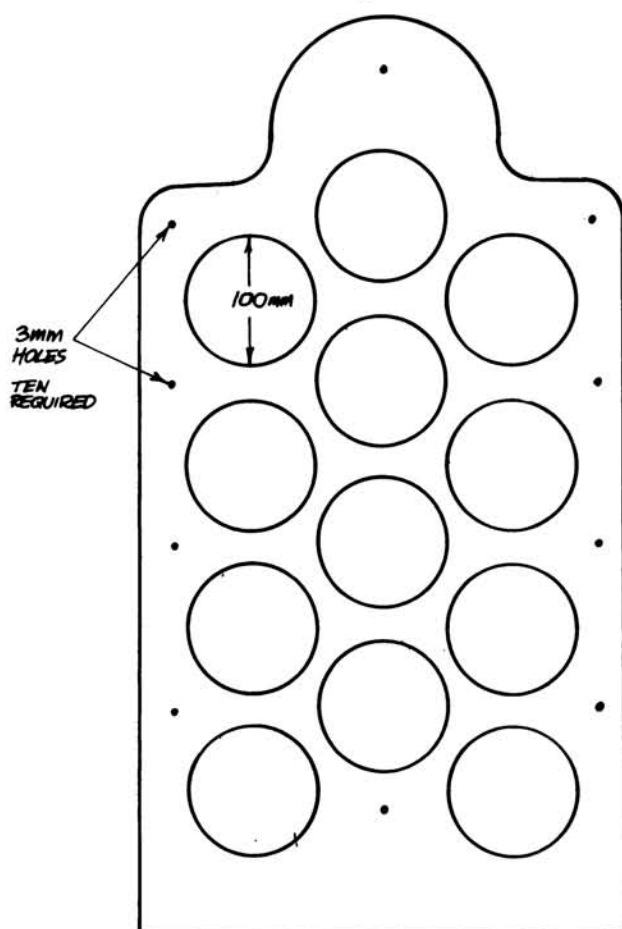


FIGURE No.3. How to cut holes

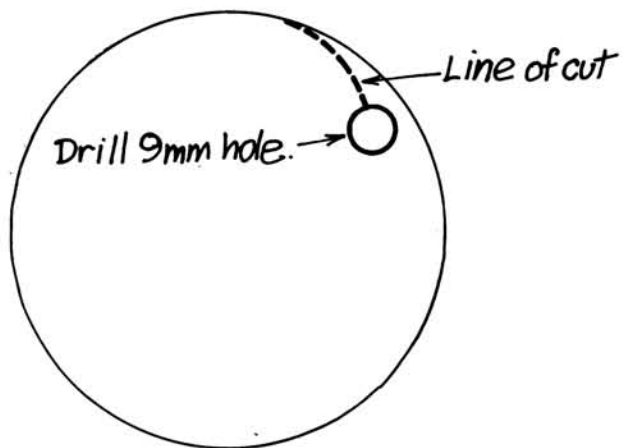


FIGURE No.4. Spacers – Ten required

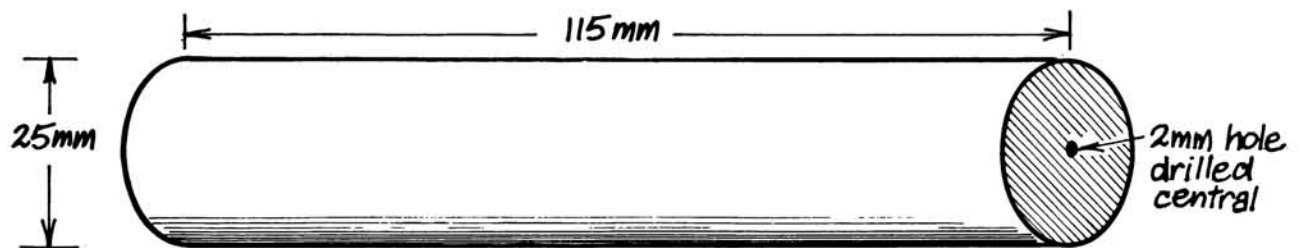
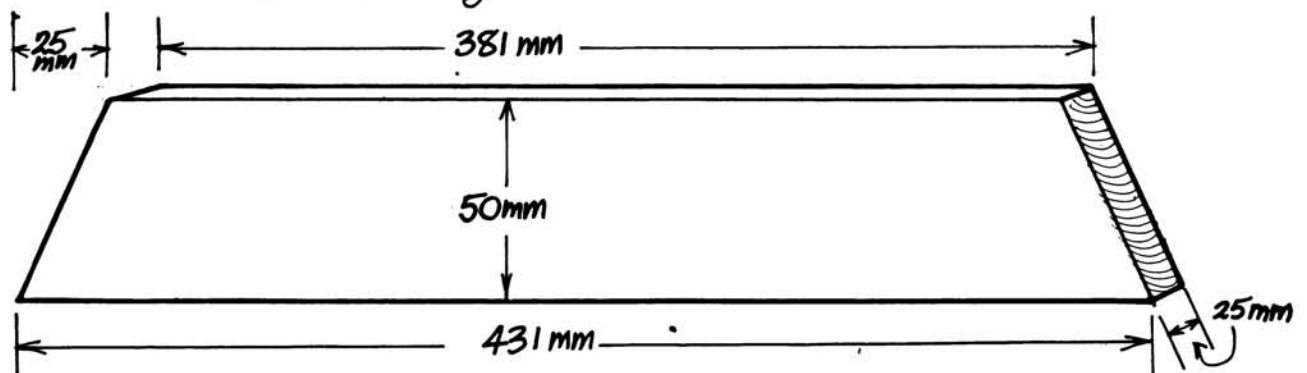


FIGURE No.5. Footing From 50mm X 25mm timber



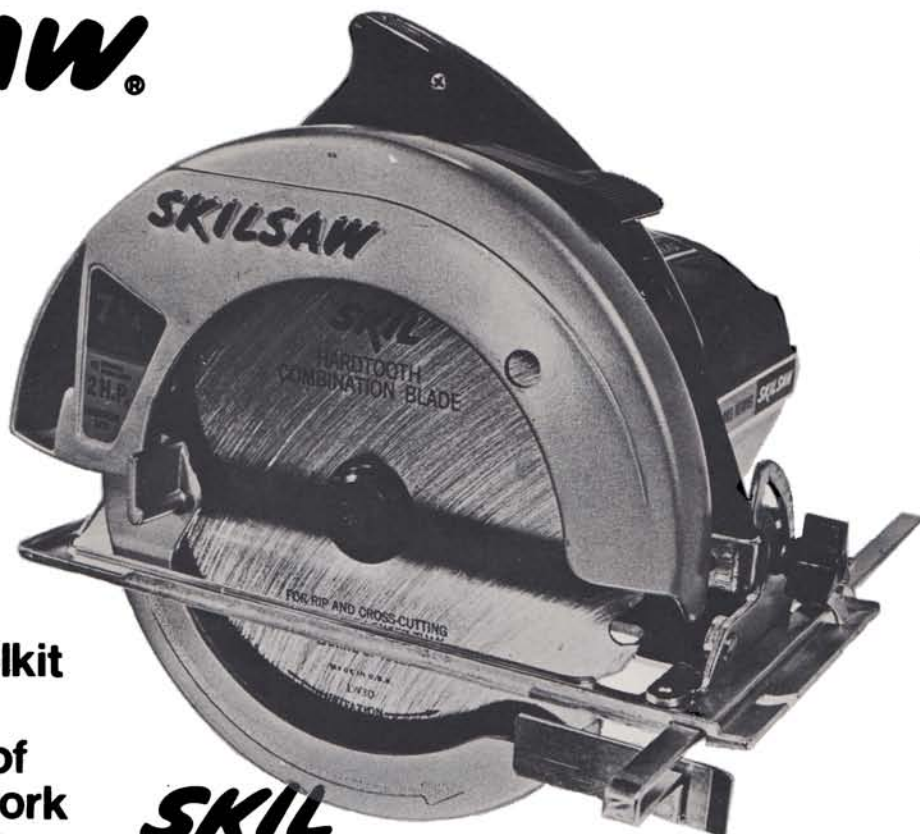
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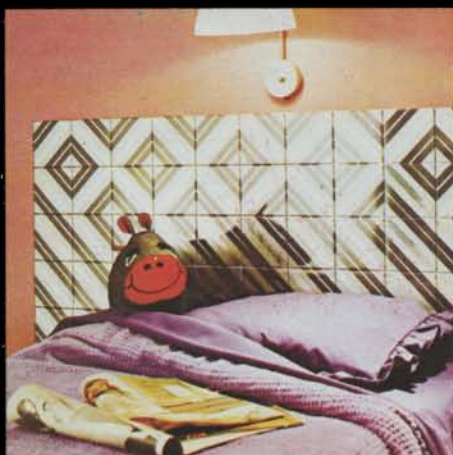
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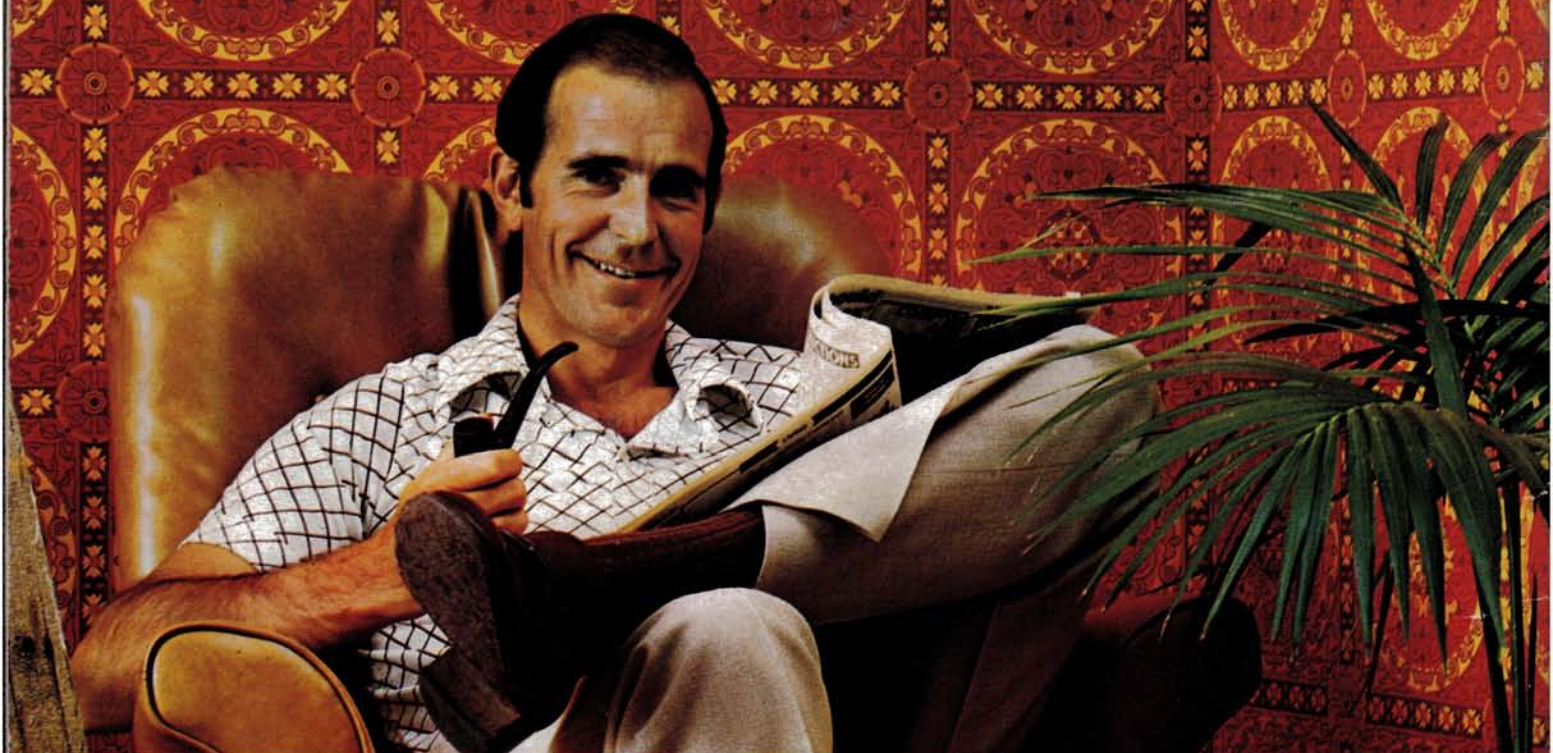
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